					NT OF NA	<b>OF UTAH</b> ATURAL RESO GAS AND M					AMENDED RE	FORM 3	<b>/</b>	
		APPL	ICATION FOR PER	MIT TO DRILL	_				1. WELL	NAME and NU	MBER e Tribal 01-07	-F4		
2. TYPE OF		RILL NEW WELL (	REENTER P&A WE	au 🖰 DEED	EN WELL	<u> </u>			3. FIELD	OR WILDCAT	UNDAGE CANY			
4. TYPE OF					LIN WELL	<i>J</i>			5. UNIT or COMMUNITIZATION AGREEMENT NAME					
6. NAME OF	OPERATOR	Oil W		ethane Well: NO					7. OPERATOR PHONE					
8. ADDRESS	OF OPERATOR		PETROGLYPH OPER	ATING CO					9. OPER	ATOR E-MAIL	208 685-768	5		
10 MINERA	L LEASE NUMBER		adway Avenue, Ste 50	0, Boise, ID, 837 MINERAL OWNE					12 SURF	PF ACE OWNERS	oowell@pgei.co	om		
	INDIAN, OR STATE				INDIAN (I	) STATE	) FEE(		FEDER.	CT0	400	ATE 🔵	FEE 📵	
13. NAME O	F SURFACE OWN	IER (if box 12 = 'fo	ee') Brian T. Bawo	en					14. SURF	ACE OWNER	<b>PHONE (if bo)</b> 801-964-267		)	
15. ADDRES	SS OF SURFACE O	OWNER (if box 12	= 'fee') 3770 S 3760 V	<i>I</i> , ,					16. SURF	ACE OWNER	E-MAIL (if bo	x 12 = 'fee	')	
17. INDIAN . (if box 12 =	,	IBE NAME dian Tribe	MU	INTEND TO COI LTIPLE FORMAT ES (Submi	IONS	PRODUCTION		_	19. SLAN		ECTIONAL 📵	HORIZO	ONTAL (	
20. LOCAT	ION OF WELL		FOOTA	GES	Q	TR-QTR	SEC.	TION	то	WNSHIP	RANGE		MERIDIAN	
LOCATION	AT SURFACE		2451 FNL	754 FEL		SWNE	1			5.0 S	4.0 W	$\neg$	U	
Top of Upp	permost Producin	ıg Zone	1930 FNL	980 FEL		SWNE	1			5.0 S	4.0 W		U	
At Total D	epth		1930 FNL	980 FEL		SWNE	1			5.0 S	4.0 W		U	
21. COUNT		CHESNE	22.	DISTANCE TO N		EASE LINE (F 754	eet)		23. NUME	BER OF ACRE	S IN DRILLING 707	UNIT		
				DISTANCE TO N plied For Drillin	g or Com		POOL		26. PROF	POSED DEPTH MD:	7151 TVD:	7103		
27. ELEVAT	ION - GROUND LE	EVEL	28.	BOND NUMBER						RCE OF DRILL		IE APPLIC	ARI F	
	Ę	5951			LPM4	1138153					43-8342			
						Cement Info						VI. 1.1		
String	Hole Size	Casing Size	0 - 53	Weight 5.0		Jnknown					Yield 1.17	Weight 15.8		
Surf	12.25	8.625	0 - 493	24.0		-55 ST&C	_	10.0		Class G	226	1.17	15.8	
Prod	7.875	5.5	0 - 7151	15.5	J.	-55 LT&C		10.0		Class G	466	1.92	12.5	
										Class G	490	1.46	13.4	
					ATTACI	HMENTS							·	
	VERIFY	THE FOLLOWII	NG ARE ATTACHE	D IN ACCORD	ANCE W	ITH THE UT	AH OIL AI	ND GAS	CONSE	RVATION GE	NERAL RUL	.ES		
<b>₩</b> WEL	L PLAT OR MAP P		СОМ	IPLETE DR	ILLING PL	_AN								
<b>I</b> ✓ AFFI		FORM	/ 5. IF OPE	RATOR IS	S OTHER	THAN THE LEA	ASE OWNER							
DIRE	CTIONAL SURVE	ED)	торо	OGRAPHICA	AL MAP									
NAME Ed Trotter TITLE Agent								PHONE	≣ 435 789	9-4120				
SIGNATUR	E			<b>DATE</b> 11/0	6/2013			EMAIL	edtrotter	@easilink.com				
	er <b>assigne</b> d 1352656000	00		APPROVAL		Brookfill								
									Permit Manager					

# CONFIDENTIAL

# NINE POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 01-07-E4 SW NE, SEC 1, T5S, R4W DUCHESNE COUNTY, UTAH

## 1. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Formation		Subsea	TVD	MD
Rig KB=~13' above GGL		5964	0	0
Surface Formation = <b>Uinta</b>				
Uinta		5951	13	13
Green River		4700	1264	1267
Trona		3328	2636	2663
Mahogany Shale		3178	2786	3959
"B" Marker	_ =	2036	3928	3974
"X" Marker		1537	4427	4475
Douglas Creek Marker	Inferior Part	1393	4571	4619
"B" Limestone	Waterflood Unit Interval	984	4980	4928
Base Castle Peak Limestone	> 5	450	5514	5562
BSCARB		46	5918	5966
Wasatch		-239	6203	6251
Formation at TD: Wasatch	Rig TD	-1139	7103	7151

# 2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS:

Substance	Formation	Subsea	TVD	MD
Base of moderately saline ground	not present	6000	NA	NA
water*				
Oil/Gas	Douglas Creek	1393	4571	4619
Oil/Gas	Castle Peak	450	5514	5562

Any water encountered during drilling shall be sampled, analyzed and reported to BLM, Vernal office using State of Utah DOGM Form 7 Report of Water Encountered during Drilling. The following analyses shall be performed on any water encountered:

Flow rate (or blowtest) Temperature pH TDS

Dissolved Iron Dissolved Magnesium Dissolved Bicarb. Dissolved Sulfate
Dissolved Calcium Dissolved Sodium Dissolved Carbonate Dissolved Chloride

All depths through the "Base of moderately saline ground water", along with any water encountered below that depth which is less than 10,000 TDS, shall be protected by the surface casing or by lifting the cement of the production casing into the surface casing.

<sup>\*</sup>Base of Moderately Saline Groundwater from Howells, Longson and Hunt, 1981, Utah State Technical Publication 92: The Base of the Moderately Saline Water in the Uinta Basin, Utah



# NINE POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 01-07-E4 SW NE, SEC 1, T5S, R4W DUCHESNE COUNTY, UTAH

# 3. PROPOSED CASING PROGRAM:

String	Hole	Casing	Top - MD	Bottom - MD	Weight lb/ft	Grade	Thread
Conductor	20"	14"	surface	53'	steel	Cond'r	none
Surface	12-1/4"	8-5/8"	surface	493'	24	J-55	STC
Production	7-7/8"	5-1/2"	surface	7151'	15.5	J-55	LTC

String	Hole	Casing	Collapse	Burst	Tensile
Surface	12-1/4"	8-5/8"	1,370 psi	2,950 psi	244,000 lb
Production	7-7/8"	5-1/2"	4,040 psi	4,810 psi	248,000 lb

- All casing will be new or inspected.
- The surface and production strings shall have a minimum of one (1) centralizer on each of the bottom three (3) joints.
- The production string shall have a minimum of one (1) centralizer for every three (3) joints from TD to the top of the "B" marker at 3974'MD.

# 4. PROPOSED CEMENTING PROGRAM:

String	Top Bottom	Cement Description	Sacks Vol (ft³)	Excess	Weight (ppg)	Yield (ft³/sk)
Conductor	0 53	Construction Grade Cement	Sufficier	nt volumes	to grout Co	onductor
Surface	0 493	Class G +2% CaCl2 +0.25 lb/sk Cello Flake	226 264	30%	15.8	1.17
Production Lead	0 3974	EXPANDACEM (Class G +additives) + 1 lb/sk Granulite TR¼ (LCM)	466 895	30%	12.5	1.92
Production Tail	3974 7151	EXPANDACEM (Class G +additives) + 1 lb/sk Granulite TR¼ (LCM)	490 716	30%	13.4	1.46

- The 8-5/8" surface casing shall be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.
- The 5-1/2" production casing shall be cemented back to surface. In the event that during the primary cementing operation the cement does not circulate to surface, a remedial cementing operation shall be performed only if necessary to lift cement above the Surface Casing Shoe at 493'MD.



NINE POINT DRILLING PLAN
PETROGLYPH OPERATING COMPANY, INC
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# 5. MINIMUM PRESSURE CONTROL AND SAFETY EQUIPMENT:

- An 8", 2000 PSI, Double Ram BOPE with Hydraulic Closing Unit shall be used.
- A 2000 PSI Working Pressure Annular shall be used.
- The flowline shall have a minimum diameter of 10".
- Auxiliary equipment shall be a Kelly Cock, Bit Float, and a TIW valve with drill pipe threads.
- Spark arrestors shall be equipped on all engine exhausts within 100 feet of the wellbore.
- See attached 2,000 psi BOP schematic diagram.

#### **BOPE TESTING PROCEDURE:**

• The BOPE shall be tested by a professional tester to conform to Onshore Order #2.

# 6. MUD PROGRAM:

#### A. SURFACE HOLE

- The surface hole will be drilled with an air/mist system from 0' to 493'. All cutting shall be directed to pit.
- A trailer-mounted compressor with a capacity of 2000 CFM will be used. Compressor will have a safety shut-off valve located less than 15 feet from the driller's controls of the rig.
- The rat and mouse holes will be drilled with the air rig after surface casing is cemented.
- The 140 barrel water truck used with the deduster will be the source of kill fluid in the highly unlikely event of pressure being encountered during drilling of the surface hole.
- Operator requests the following variances from Onshore Order 2 part E during drilling of the surface hole. Operator will use air drilling techniques only on surface hole:
  - Operator requests a variance to regulations requiring the blooie line discharge to be 100' from the wellbore. Due to reduced location size, the blooie line discharge will be approximately 75' from the wellbore and securely anchored.
  - Operator requests a variance to regulations requiring an automatic igniter or continuous pilot light on the blooie line. A mister shall be on the end of the blooie line.
  - Operator requests a variance to regulations requiring compressors be located in the opposite direction from the blooie line; a minimum of 100' from the wellbore. Due to the reduced location size, the compressors shall be located as close as is reasonable to the opposite direction from the blooie line and 75' from the wellbore.
  - o Operator requests a variance to regulations requiring a BOPE on the hole when drilling the surface hole. An air bowl shall be utilized on the diverter system in place of a BOPE.



# NINE POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 01-07-E4 SW NE, SEC 1, T5S, R4W DUCHESNE COUNTY, UTAH

# B. PRODUCTION HOLE

- The production hole shall be drilled with a freshwater polymer system from 493' to 7151'. LSND mud if conditions warrant.
- Clay inhibition and hole stability shall be achieved with a Diammonium Phosphate (DAP) additive or similar source of clay-stabilizing ions. Anticipated mud weight is 8.3-8.8 lbs/gal. although mud weight up to 10lbs/gal may be used if necessary to prevent wellbore wall instability due to the planned inclination of the well.
- All cuttings and circulating medium shall be directed into the reserve pit. Total Dissolved Solids (TDS) are anticipated to be less than 3000 PPM.
- Sufficient mud inventory will be maintained on location in either tanks or the reserve pit during the drilling of the production hole to handle any adverse conditions that may arise.
- If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite. Enough material shall be maintained on location to allow for the mudweight to be raised to 10.5 lbs/gal should need arise.
- During drilling operations, pit levels and flow from the well shall be monitored by instrumentation to include at least: a pit volume totalizer (PVT), a stroke counter, and a mud-flow indicator.
- A mud-gas separator shall be available on location.

## C. HAZARDOUS MATERIALS AND POLLUTANTS

- Chromate additives **shall NOT** be used in the mud system on Indian lands without prior DOGM approval to ensure adequate protection of freshwater aquifers.
- Chemicals subject to reporting under SARA Title III in an amounts equal to or greater than 10,000 pounds annually **shall NOT** be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of this well.
- Extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities shall NOT be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of this well.
- Hazardous substances specifically listed by the EPA as a hazardous waste, as defined in 40 CFR 261 (D), or any substances that through their use would lead to the generation of a hazardous waste, **shall NOT** be used in association with the drilling, testing, or completion of this well.



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# NINE POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 01-07-E4 SW NE, SEC 1, T5S, R4W DUCHESNE COUNTY, UTAH

# 7. EVALUATION PROGRAM:

Logs: Triple Combo TD to base of surface casing (AIT, DSN, CDL)

Base of surface casing to surface (GR only)

Cores: None planned

DST: None planned

Testing: Operator plans no testing until the completion phase of the well.

# 8. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURÉ:

- Operator anticipates Bottom Hole Temperatures below 150°F, the maximum temperature for DAP drilling fluids.
- No H<sub>2</sub>S has been encountered or is known to exist from previous drilling in the area at this depth.
- Maximum pressure for hydrocarbon bearing zones at native conditions in this area is approximately 1788 PSI (0.25 PSI/ft gradient).
- This well is NOT in the vicinity of active injection wells. Nearby active injection can cause pressures up to a 0.433 PSI/ft gradient.

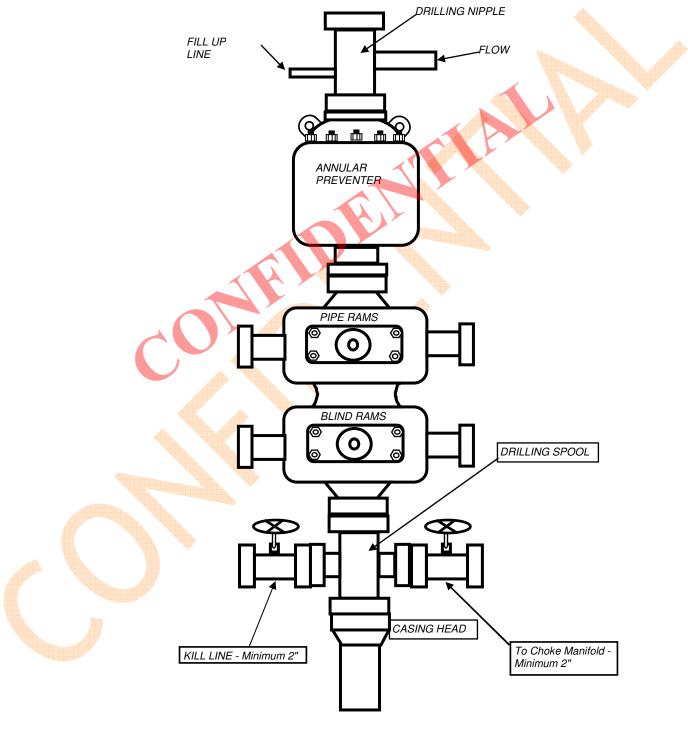
# 9. DIRECTIONAL WELL PLAN:

- Well shall be drilled directionally in order to limit surface disturbance.
- A Positive Displacement Motor with a bent sub of 1.25° to 1.75° will be used to control well path.
- A directional survey shall be taken at least one (1) time per 100' of drilling.
- Anti-collision equipment will not be used as there are no existing wells in the vicinity of the proposed well path.
- While cutting the Waterflood Unit Interval from 3974' to 5966', the actual well path may be allowed to vary up to 100' horizontally from plan in order to prevent excessive slide drilling. Above and below the Waterflood Unit Interval, variances in excess 100' horizontally from plan may be allowed.
- Directional drilling plan is attached.



NINE POINT DRILLING PLAN
PETROGLYPH OPERATING COMPANY, INC
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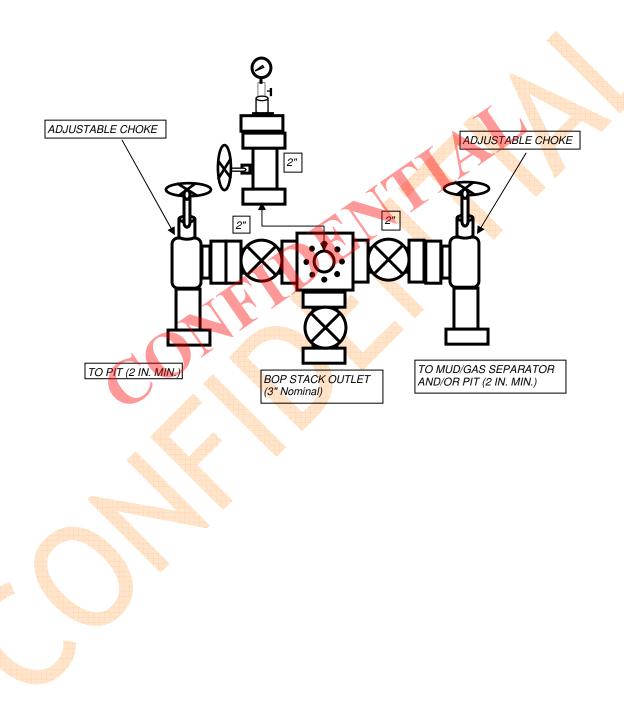
# TYPICAL 2,000 p.s.i. BLOWOUT PREVENTER

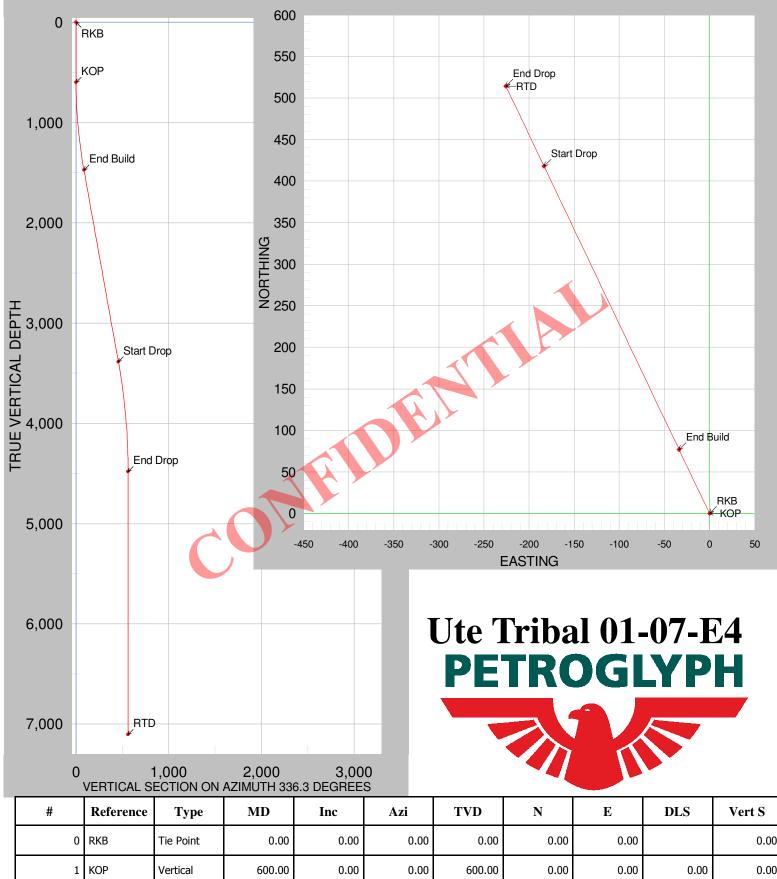




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NINE POINT DRILLING PLAN
PETROGLYPH OPERATING COMPANY, INC
UTE TRIBAL 01-07-E4
SW NE, SEC 1, T5S, R4W
DUCHESNE COUNTY, UTAH
TYPICAL 2,000 p.s.i. CHOKE MANIFOLD





#	Reference	Туре	MD	Inc	Azi	TVD	N	E	DLS	Vert S
0	RKB	Tie Point	0.00	0.00	0.00	0.00	0.00	0.00		0.00
1	КОР	Vertical	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00
2	End Build	Build	1480.00	11.00	336.30	1474.60	77.11	-33.85	1.25	84.21
3	Start Drop	Tangent	3430.00	11.00	336.30	3388.78	417.81	-183.41	0.00	456.29
4	End Drop	Drop	4530.00	0.00	0.00	4482.03	514.20	-225.72	1.00	561.56
5	RTD	Vertical	7151.00	0.00	0.00	7103.03	514.20	-225.72	0.00	561.56

RECEIVED: November 06, 2013

SES - Stoner Engineering Software

				0	1-07-E4	, Plan	1		
Operator Field Well Name Plan				Units	feet, %100ft Duchesne UT		11:57 We	dnesday, November ical Section Azimuth y Calculation Method Database	Minimum Curvature
Locatio	on SHL: 2 FEL	451' FNL 8	k 1754' FEL B	HL: 1930' I	FNL & 1980'	MapZon	е	Lat Long	g Ref
Si						Surface	x	Surface I	_ong
Slot Nam	ne		UWI			Surface	Υ	Surface	•
Well Number	er		API			Z Datur	n		
Proje	ct					Surface	<b>Z</b>	Ground I	_evel
DIRECTION	AL WELL P	LAN							
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*
*** RKB (at	t MD = 0.0	00)	**	**	**	∘/1∩∩f+	**	"	**
0.00	0.00	0.0	0.00	0.00	0.00		0.00		
50.00	0.00	0.0	50.00	0.00	0.00	0.00	0.00		
100.00	0.00	0.0	100.00	0.00	0.00	0.00	0.00		
150.00 200.00	0.00	0.0 0.0	150.00 200.00	0.00	0.00	0.00	0.00 0.00		
200.00	0.00	0.0	200.00	0.00	0.00	0.00	0.00		
250.00	0.00	0.0	250.00	0.00	0.00	0.00	0.00		
300.00	0.00	0.0	300.00	0.00	0.00	0.00	0.00		
350.00	0.00	0.0	350.00	0.00	0.00	0.00	0.00		
400.00	0.00	0.0	400.00	0.00	0.00	0.00	0.00		
450.00	0.00	0.0	450.00	0.00	0.00	0.00	0.00		
500.00	0.00	0.0	500.00	0.00	0.00	0.00	0.00		
550.00	0.00	0.0	550.00	0.00	0.00	0.00	0.00		
*** KOP (at		-							
600.00	0.00	0.0	600.00	0.00	0.00	0.00	0.00		
650.00 700.00	0.63 1.25	336.3 336.3	650.00 699.99	0.25 1.00	-0.11 -0.44	1.25 1.25	0.27 1.09		
700.00	1.25	330.3	055.55	1.00	-0.44	1.25	1.09		
750.00	1.88	336.3	749.97	2.25	-0.99	1.25	2.45		
800.00	2.50	336.3	799.94	3.99	-1.75	1.25	4.36		
850.00	3.13	336.3	849.88	6.24	-2.74	1.25	6.82		
900.00	3.75	336.3	899.79	8.99	-3.94	1.25	9.81		
950.00	4.38	336.3	949.66	12.23	-5.37	1.25	13.36		
1000.00	5.00	336.3	999.49	15.97	-7.01	1.25	17.44		
1050.00	5.63	336.3	1049.28	20.21	-8.87	1.25	22.07		
1100.00	6.25	336.3	1099.01	24.95	-10.95	1.25	27.24		
1150.00	6.88	336.3	1148.68	30.18	-13.25	1.25	32.96		
1200.00	7.50	336.3	1198.29	35.91	-15.76	1.25	39.21		
1250.00	8.13	336.3	1247.82	42.13	-18.49	1.25	46.01		
1300.00	8.75	336.3	1297.28	48.85	-21.44	1.25	53.35		
1350.00	9.38	336.3	1346.66	56.06	-24.61	1.25	61.22		
1400.00	10.00	336.3	1395.94	63.76	-27.99	1.25	69.64		
1450.00	10.63	336.3	1445.14	71.96	-31.59	1.25	78.59		
*** END BU	ILD (at MI	D = 1480	.00)						
1480.00	11.00	336.3	1474.60	77.11	-33.85	1.25	84.21		
1500.00	11.00	336.3	1494.24	80.61	-35.38	0.00	88.03		
1550.00	11.00	336.3	1543.32	89.34	-39.22	0.00	97.57		

SES - Stoner Engineering Software

				0	1-07-E4	, Plan	1		
Operator Field Well Name Plan	01-07-E4			Units	feet, %100ft Duchesne UT		11:57 Wed	cal Section Azimuth Calculation Method	r 06, 2013 Page 2 of 5 n 336.3 d Minimum Curvature e Access
Location	on SHL: 2 FEL	2451' FNL 8	k 1754' FEL B	HL: 1930' I	FNL & 1980'	MapZon	е	Lat Lon	g Ref
s	ite					Surface	X	Surface	Long
Slot Nar	ne		UWI			Surface		Surfac	•
Well Numb	er		API			Z Datur	n		
Proje	ect					Surface	Z	Ground	Level
DIRECTION	AL WELL P	LAN							
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*
1600.00	11.00	336.3	1592.40	98.08	-43.05	0.00	107.11	ft	ft ft
1650.00	11.00	336.3	1641.48	106.81	-46.89	0.00	116.65		
1700.00	44.00	000.0	1000 50	44555	F0 70	0.00	100,10		
1700.00	11.00	336.3	1690.56	115.55	-50.72	0.00	126.19		
1750.00 1800.00	11.00 11.00	336.3 336.3	1739.64 1788.72	124.29 133.02	-54.56 -58.39	0.00	135.73 145.27		
1850.00	11.00	336.3	1837.81	141.76	-56.39 -62.2 <mark>3</mark>	0.00	154.81		
1900.00	11.00	336.3	1886.89	150.49	-66.06	0.00	164.35		
1000.00	11.00	000.0	1000.00	100.10	00.00	0.00	101.00		
1950.00	11.00	336.3	1935.97	159.23	-69.90	0.00	173.90		
2000.00	11.00	336.3	1985.05	167.97	-73.73	0.00	183.44		
2050.00	11.00	336.3	2034.13	176.70	-77.57	0.00	192.98		
2100.00	11.00	336.3	2083.21	185.44		0.00	202.52		
2150.00	11.00	336.3	2132.29	194.17	-85.24	0.00	212.06		
2200.00	11.00	336.3	2181.38	202.91	-89.07	0.00	221.60		
2250.00	11.00	33 <mark>6</mark> .3	2230.46	211.64	-92.91	0.00	231.14		
2300.00	11.00	336.3	2279.54	220.38	-96.74	0.00	240.68		
2350.00	11.00	336.3	2328.62	229.12	-100.57	0.00	250.22		
2400.00	11.00	336.3	2377.70	237.85	-104.41	0.00	259.76		
2450.00	11.00	336.3	2426.78	246.59	-108.24	0.00	269.30		
2500.00	11.00	336.3	2475.86	255.32	-112.08	0.00	278.84		
2550.00	11.00	336.3	2524.95	264.06	-115.91	0.00	288.38		
2600.00	11.00	336.3	2574.03	272.80	-119.75	0.00	297.92		
2650.00	11.00	336.3	2623.11	281.53	-123.58	0.00	307.46		
2700.00	11.00	336.3	2672.19	290.27	-127.42	0.00	317.00		
2750.00	11.00	336.3	2672.19 2721.27	290.27	-127.42 -131.25	0.00	317.00		
2800.00	11.00	336.3	2770.35	307.74	-135.09	0.00	336.08		
2850.00	11.00	336.3	2819.43	316.47	-138.92	0.00	345.62		
2900.00	11.00	336.3	2868.51	325.21	-142.76	0.00	355.16		
2050.00	11.00	226.0	2017.60	222.05	1 <i>10</i> E0	0.00	264.70		
2950.00 3000.00	11.00 11.00	336.3 336.3	2917.60 2966.68	333.95 342.68	-146.59 -150.43	0.00	364.70 374.24		
3050.00	11.00	336.3	3015.76	351.42	-154.26	0.00	383.78		
3100.00	11.00	336.3	3064.84	360.15	-158.10	0.00	393.33		
3150.00	11.00	336.3	3113.92	368.89	-161.93	0.00	402.87		
3200.00	11.00	336.3	3163.00	377.63	-165.77	0.00	412.41		
3250.00 3300.00	11.00 11.00	336.3 336.3	3212.08 3261.17	386.36 395.10	-169.60 -173.44	0.00	421.95 431.49		
5500.00	11.00	JJU.J	JEU1.1/	393.10	-173.44	0.00	431.43		

SES - Stoner Engineering Software

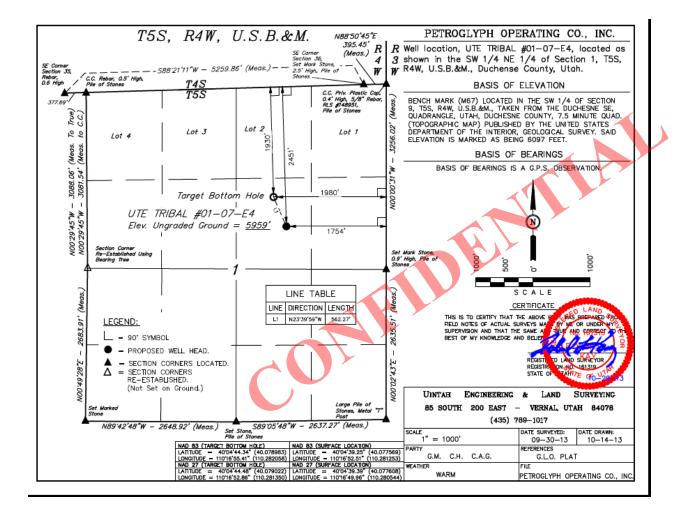
				0.	1-07-E4	Plan 1			
Operator Field Well Name Plan				Units	feet, %100ft Duchesne UT		11:57 Wed	nesday, November cal Section Azimuth Calculation Method Database	Minimum Curvature
Locatio		451' FNL 8	k 1754' FEL B	HL: 1930' F	FNL & 1980'	MapZone	•	Lat Long	Ref
Sit	FEL te					SurfaceX		Surface L	.ona
Slot Nam			UWI			SurfaceY		Surface	
Well Number	er		API			Z Datum			
Proje	ct					Surface Z	•	Ground L	evel
DIRECTION/	L WELL PI	_AN							
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*
3350.00	11.00	336.3	3310.25	403.83	-177.27	0.00	441.03	ft	ft ft
3400.00	11.00	336.3	3359.33	412.57	-181.10	0.00	450.57		
					2				
*** START D	•								
3430.00	11.00	336.3	3388.78	417.81	-183.41	0.00	456.29		
3450.00	10.80	336.3	3408.42	421.27	-184.93	1.00	460.07		
3500.00	10.30	336.3	3457.57	429.66	-188.61	1.00	469.23		
3550.00 3600.00	9.80 9.30	336.3 336.3	3506.80 3556.11	437.64 445.24	-192.11 -195.45	1.00 1.00	477.95 486.25		
3600.00	9.30	330.3	3336.11	445.24	-195.45	1.00	400.23		
3650.00	8.80	336.3	3605.49	452.44	-198.61	1.00	494.11		
3700.00	8.30	336.3	3654.93	459.25	-201.60	1.00	501.55		
3750.00	7.80	336.3	3704.44	465.66	-204.41	1.00	508.55		
3800.00	7.30	336.3	3754.01	471.68	-207.05	1.00	515.12		
3850.00	6.80	336.3	3803.63	477.29	-209.52	1.00	521.26		
3900.00	6.30	336.3	3853.30	482.52	-211.81	1.00	526.96		
3950.00	5.80	336.3	3903.02	487.34	-211.01	1.00	532.23		
4000.00	5.30	336.3	3952.79	491.77	-215.87	1.00	537.07		
4050.00	4.80	336.3	4002.59	495.80	-217.64	1.00	541.47		
4100.00	4.30	336.3	4052.44	499.43	-219.24	1.00	545.43		
4150.00	3.80	336.3	4102.31	502.67	-220.65	1.00	548.96		
4200.00	3.30	336.3	4152.21	505.50	-221.90	1.00	552.06		
4250.00	2.80	336.3	4202.14	507.94	-222.97	1.00	554.72		
4300.00	2.30	336.3	4252.09	509.97	-223.86	1.00	556.95		
4350.00	1.80	336.3	4302.06	511.61	-224.58	1.00	558.73		
4400.00	1.30	336.3	4352.04	512.85	-225.13	1.00	560.09		
4450.00	0.80	336.3	4402.03	513.69	-225.49	1.00	561.00		
4500.00	0.30	336.3	4452.03	514.13	-225.69	1.00	561.48		
*** END DR	•	= 4530.							
4530.00	0.00	0.0	4482.03	514.20	-225.72	1.00	561.56		
4550.00	0.00	0.0	4502.03	514.20	-225.72	0.00	561.56		
4600.00	0.00	0.0	4552.03	514.20	-225.72	0.00	561.56		
4650.00	0.00	0.0	4602.03	514.20	-225.72	0.00	561.56		
4700.00	0.00	0.0	4652.03	514.20	-225.72	0.00	561.56		
4750.00	0.00	0.0	4702.03	514.20	-225.72	0.00	561.56		
4800.00	0.00	0.0	4752.03	514.20	-225.72	0.00	561.56		
4850.00	0.00	0.0	4802.03	514.20	-225.72	0.00	561.56		

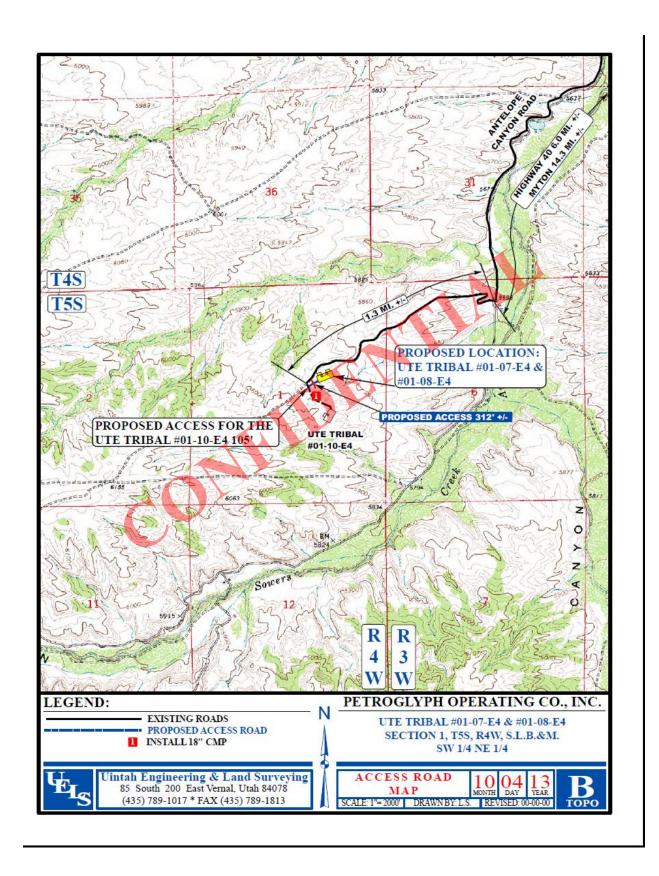
SES - Stoner Engineering Software

				0	1-07-E4	, Plan	1		
Operator Field Well Name Plan				Units	feet, %100ft Duchesne UT	•	11:57 Wed	nesday, November cal Section Azimuth Calculation Method Database	Minimum Curvature
Locatio		451' FNL 8	1754' FEL E	3HL: 1930' F	FNL & 1980'	MapZo	ne	Lat Long	Ref
Sit	FEL te					Surface	eΧ	Surface L	.ong
Slot Nam	ne		UWI			Surface	eΥ	Surface	•
Well Number	er		API			Z Datu			
Projec	ct					Surface	Z	Ground L	evel
DIRECTIONA	AL WELL PI	LAN							
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*
4900.00	0.00	0.0	4852.03	514.20	-225.72	0.00	561.56	ff	ft ft
4950.00	0.00	0.0	4902.03	514.20	-225.72	0.00	561.56		
5000.00	0.00	0.0	4952.03	514.20	-225.72	0.00	561.56		
5050.00	0.00	0.0	5002.03	514.20	-225.72	0.00	561.56		
5100.00	0.00	0.0	5052.03	514.20	-225.72	0.00	561.56		
5150.00	0.00	0.0	5102.03	514.20	-225.72	0.00	561.56		
5200.00	0.00	0.0	5152.03	514.20	-225.72	0.00	561.56		
5250.00	0.00	0.0	5202.03	514.20	-225.72	0.00	561.56		
5300.00	0.00	0.0	5252.03	514.20	-225.72	0.00	561.56		
5350.00	0.00	0.0	5302.03	514.20	-225.72	0.00	561.56		
5400.00	0.00	0.0	5352.03	514.20	-225.72	0.00	561.56		
5450.00	0.00	0.0	5402.03	514.20	-225.72	0.00	561.56		
5500.00	0.00	0.0	5452.03	514.20	-225.72	0.00	561.56		
5550.00	0.00	0.0	5502.03	514.20	-225.72	0.00	561.56		
5600.00	0.00	0.0	5552.03	514.20	-225.72	0.00	561.56		
5650.00	0.00	0.0	5602.03	514.20	-225.72	0.00	561.56		
5700.00	0.00	0.0	5652.03	514.20	-225.72	0.00	561.56		
5750.00	0.00	0.0	5702.03	514.20	-225.72	0.00	561.56		
5800.00	0.00	0.0	5752.03	514.20	-225.72	0.00	561.56		
5850.00	0.00	0.0	5802.03	514.20	-225.72	0.00	561.56		
5900.00	0.00	0.0	5852.03	514.20	-225.72	0.00	561.56		
5950.00	0.00	0.0	5902.03	514.20	-225.72 -225.72	0.00	561.56		
6000.00	0.00	0.0	5952.03	514.20	-225.72	0.00	561.56		
6050.00	0.00	0.0	6002.03	514.20	-225.72	0.00	561.56		
6100.00	0.00	0.0	6052.03	514.20	-225.72	0.00	561.56		
6150.00	0.00	0.0	6102.03	514.20	-225.72	0.00	561.56		
6200.00	0.00	0.0	6152.03	514.20	-225.72	0.00	561.56		
6250.00	0.00	0.0	6202.03	514.20	-225.72	0.00	561.56		
6300.00	0.00	0.0	6252.03	514.20	-225.72	0.00	561.56		
6350.00	0.00	0.0	6302.03	514.20	-225.72	0.00	561.56		
6400.00	0.00	0.0	6352.03	514.20	-225.72	0.00	561.56		
6450.00	0.00	0.0	6402.03	514.20	-225.72	0.00	561.56		
6500.00	0.00	0.0	6452.03	514.20	-225.72	0.00	561.56		
6550.00	0.00	0.0	6502.03	514.20	-225.72	0.00	561.56		
6600.00	0.00	0.0	GEED OO	E1400	00E 70	0.00	E61 E0		
6600.00	0.00	0.0	6552.03	514.20	-225.72	0.00	561.56		

SES - Stoner Engineering Software

						Dlan			
					-07-E4,	, Plan			
Operator Field				Units 1	eet, %100ft			nesday, November	06, 2013 Page 5 of 5
Well Name 0	1-07-F4			State					Minimum Curvature
Plan 1				Country			Ourvey	Database	
	SHL: 2	2451' FNL 8	k 1754' FEL 1	BHL: 1930' Fi		MapZor	ne	Lat Long	
Site	FEL					Surface	×X	Surface l	Lona
Slot Name			UWI			Surface		Surfac	_
Well Number			API			Z Datu	m		
Project	t					Surface	Z	Ground I	_evel
DIRECTIONAL	WELL P	LAN							
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*
6650.00	0.00	0.0	6602.03	514.20	-225.72	0.00	561.56	<del></del>	ft ft
6700.00	0.00	0.0	6652.03	514.20	-225.72	0.00	561.56		
6750.00	0.00	0.0	6702.03	514.20	-225.72	0.00	561.56		
6800.00	0.00	0.0	6752.03	514.20	-225.72	0.00	561.56		
6850.00	0.00	0.0	6802.03	514.20	-225.72	0.00	561.56		
6900.00	0.00	0.0	6852.03	514.20	-225.72	0.00	561.56		
6950.00	0.00	0.0	6902.03	514.20	-225.72	0.00	561.56		
7000.00	0.00	0.0	6952.03	514.20	-225.72	0.00	561.56		
7050.00	0.00	0.0	7002.03	514.20	-225.72	0.00	561.56		
7100.00	0.00	0.0	7052.03	514.20	-225.72	0.00	561.56		
7150.00	0.00	0.0	7102.03	514.20	-225.72	0.00	561.56		
*** RTD (at I	MD = 71	51.00)							
7151.00	0.00	0.0	7103.03	514.20	-225.72	0.00	561.56		





# MEMORANDUM OF SURFACE USE AND RIGHT-OF-WAY AGREEMENT

# THIS MEMORANDUM WITNESSES:

THAT on the 16th day of June, 1997, between LEE H MOON AND KATHY MOON, husband and wife, , whose address is East Old Highway 40, Duchesne, Utah 84021 (GRANTOR), in consideration of the covenants and agreements contained in that certain Surface Use and Right-Of-Way Agreement dated Tune 25 th 1997 (the "Agreement"), has granted and conveyed, and by these presents does hereby grant and convey to PETROGLYPH OPERATING COMPANY, INC., whose address is 6209 North Highway 61, P.O. Box 1839, Hutchinson, Kansas 67502 (GRANTEE), certain rights of surface use, rights-of-way, and easements for the exploration, development, production, and transportation of oil and gas in, on, over, through and across certain real property owned by GRANTOR and situated in the County of Duchesne, State of Utah, and more particularly described as follows:

Township 4 South - Range 4 West USM

Section 24: All

Section 25: All

Section 26: All

Section 35: All

Section 36: All

Township 4 South - Range 3 West USM

Section 19: All

Section 28: N/2 SW/4, NW/4 SE/4

Section 29: NE/4 SE/4

Section 32: All less NW/4 NW/4

CAROLYNE B. MADSEN, RECORDER FILED BY CRY FOR ED TROTTER

DUCHESNE COUNTY CORPORATION

Township 5 South - Range 4 West USM

Section 1: All

Containing 5,289.65 acres, more or less.

Said rights and uses are granted upon and subject to all of the terms and conditions set forth in the Agreement, executed by GRANTOR and GRANTEE, which Agreement is held by and can be inspected by parties having a vested interest in the Agreement and/or subject property during reasonable business hours at the offices of GRANTOR or GRANTEE. Such uses, rights-of-way and easements are granted for the full period of development of and the production life of any of the wells, appurtenances and facilities associated therewith.

IN WITNESS WHEREOF, this Memorandum has been duly executed this 25th day of JUNE\_, 1997.

> GRANTOR LEE H MOON AND KATHY MOON

Ihmoon84 mem

,	
GRANT	By: Its: Agent
ACKNOWLEDGMENTS	
STATE OF UTAH : COUNTY OF DUCHESNE )	ss.
The foregoing instrumer, 1997  Christe	of the was acknowledged before me this 25 <sup>+5</sup> day of by LEE H MOON AND KATHY MOON, husband and wife.  Quencer  Notary Public  Residing in: Duchesne, W
Commission Expires:  5-2-98  ACKNOWLEDGMENT	CHARLOTTE JENSEN NOTARY PUBLIC • STATE of UTAH 385 EAST 100 SOUTH P.O. BOX 140 DUCHESNE, UT 84021 COMM. EXP. 5-2-98
STATE OF UTAH  DUCHESNE:  COUNTY OF SALTEARE	SS.
The foregoing instrument 1997 PETROGLYPH OPERATING COMPA	was acknowledged before me this 25 <sup>75</sup> day of by <u>Col Grottes</u> , the Agent of NY, INC.
Charlotte  My Commission Expires:  5-2-98	Notary Public Residing in: Duchesne, W  CHARLOTTE JENSEN NOTARY PUBLIC • STATE OF UTAH 385 EAST 100 SOUTH P.O. BOX 140 DUCHESNE, UT 84021 COMM. EXP. 5-2-98

# SURFACE USE AND RIGHT-OF-WAY AGREEMENT

Agreement entered into this 25., 1997 by and between LEE H. MOON AND KATHY MOON, husband and wife, , whose address is East Old Highway 40, Duchesne, Utah 84021 (hereinafter "GRANTOR") and PETROGLYPH OPERATING COMPANY, INC., whose address is 6209 North Highway 61, P.O. Box 1839, Hutchinson, Kansas 67502, (hereinafter "PETROGLYPH"):

# RECITALS

A. GRANTOR is the owner of all or a portion of the surface estate of lands located in Duchesne County, Utah, and more particularly described as:

# Township 4 South - Range 4 West USM

Section 24: All Section 25: All Section 26: All Section 35: All Section 36: All

# Township 4 South - Range 3 West USM

Section 19: All

Section 28: N/2 SW/4, NW/4 SE/4

Section 29: NE/4 SE/4

Section 32: All less NW/4 NW/4

# Township 5 South - Range 4 West USM

Section 1: All

Containing 5,289.65 acres, more or less.

Said lands are hereinafter referred to as the "Subject Lands";

- B. GRANTOR or GRANTOR's predecessors acquired all or part of the surface estate of the Subject Lands from the Ute Indian Tribe pursuant to 1) the Act of June 18, 1934, (48 Stat. 984), 2) the Act of March 11, 1948 (62 Stat. 72), or 3) from the United States under certain of the private entry and homestead Acts;
- C. PETROGLYPH is in the business of exploring for, developing, and producing oil and gas deposits;
- D. PETROGLYPH is the lessee of and/or owns the operating rights in numerous Indian and other oil and gas leases covering a portion of the Subject Lands and/or other lands in Duchesne County;
- E. A map depicting the Subject Lands and surrounding lands is attached hereto as Exhibit "A," which by this reference is incorporated herein;

- PETROGLYPH anticipates increased operations for the development and enhanced recovery of oil and gas reserves within and in proximity to the Subject Lands. These operations require access to and rights-of-way on and over and use of the Subject Lands and the construction, maintenance and operation of well sites, power lines, natural gas delivery systems, pipelines, compressor stations and appurtenances; and
- G. PETROGLYPH has permitted or is in the process of permitting the drilling, production and enhanced recovery of oil and gas wells located on the Subject Lands, and/or on other lands in Duchesne County.

NOW THEREFORE, FOR AND IN CONSIDERATION OF TEN DOLLARS (\$10.00) PAID AND THE PAYMENTS AND THE TERMS AND CONDITIONS AND COVENANTS PROVIDED HEREIN, GRANTOR grants and conveys to PETROGLYPH, its successors and assigns, easements and the right to use and occupy those portions of the Subject Lands as may be necessary (a) for oil and gas exploration, including, but not limited to the placement of seismic lines and other exploration activities, (b) to conduct its drilling and production operations on said property, including the right to construct and maintain, rework, replace, and operate oil and gas well sites, and enhanced oil and gas recovery operations (c) to construct, entrench, maintain, operate, replace, remove, and protect pipelines for water, oil or gas with appurtenances thereto, including, but not limited to, valves, compressors, metering equipment, and cathodic equipment, (d) to construct, maintain or cover up any pits or ponds necessary for drilling operations or water storage, (e) to erect, maintain, relocate, replace or remove production Facilities, including, but not limited to, pumps, compressors, separators and treaters, and (f) to construct, maintain, relocate, or abandon roads, and in connection therewith, power and communication lines (said well sites, pipelines, appurtenances, valves, metering equipment) cathodic equipment, road and power lines being sometimes collectively called the "Facilities") in, on, over, under and through the Subject Lands to the extent of GRANTOR's ownership therein.

PETROGLYPH shall have the free right of ingress and egress in, on, over, upon, through and across said nghts-of-way and easements for any and all purposes that may be necessary or incidental to the maintenance of the right-of-ways and easements with the right to use existing roads which enter GRANTOR's property for the purpose of constructing, inspecting, repairing and maintaining the Facilities and the removal or replacement of same at will, either in whole or in part, and the replacement of said pipelines with either like or different size pipe. During temporary periods, PETROGLYPH may use such portions of the property along and adjacent to said rights-of-way as may be necessary in connection with construction, maintenance, repair, removal or replacement of the Facilities and if such use causes any damages to GRANTOR's lands outside of the above described rights-of-way. PETROGLYPH shall pay GRANTOR for such damages in accordance with the provisions of the Agreement.

Where economically feasible and reasonable, PETROGLYPH will utilize a "development comidor" right-of-way approach in its development operations. PETROGLYPH is to limit disturbance to that land reasonably necessary for well drilling, development, and subsequent on-site operations and to a width no greater than 60 feet for roads and pipeline comidors.

PETROGLYPH to have and hold the above described rights and easements, together with all rights necessary to operate and maintain the Facilities from the date of written notice to GRANTOR in the form as set forth in Exhibit "B" for the term, under the conditions and for the consideration as set forth herein until such time as such rights-of-way and easements are abandoned or terminated under the terms provided herein. When PETROGLYPH intends to use and occupy any portion of the Subject Lands owned by the GRANTOR, PETROGLYPH shall give the GRANTOR written notice of surface use and easement using the form attached hereto as Exhibit "B", together with payment for the additional rights in accordance with the compensation provisions as provided below. Upon receipt of such notice, GRANTOR shall have seven (7) days within which to review the proposed surface use and notify PETROGLYPH of any objections regarding location or other concerns and offer specific reasonable alternatives or modifications to the location or other concern. PETROGLYPH will consider such alternatives and, if deemed to be reasonable and practical under the particular circumstances, will

accommodate GRANTOR by modifying its place of surface use in whole or in part accordingly. PETROGLYPH agrees in the conduct of its operations upon the Subject Property to the following:

- (a) To construct the rights-of-way, drill pads and other Facilities in a prompt—and workmanlike manner:
- (b) To stockpile and replace top soil and take other reasonable soil and resource conservation and protection measures on the lands covered by the rights-of-way and surface use locations and Facilities:
- (c) To take reasonable precautions to prevent fires on the lands covered by the rights-of-way and surface use locations and Facilities;
- (d) To rebuild and/or repair any road, gates, fences, or other appurtenances or improvements as may be destroyed or damaged by PETROGLYPH's activities and to build and maintain necessary and suitable crossing and drainage structures, install cattle guards with offset gates for all roads and ways that intersect the works constructed, maintained, or operated under the rights-of-way, surface use locations, and Facilities. Fence gates installed shall be of steel construction (Powder River type). Any fences installed by the GRANTOR, which cross roads granted hereunder, shall have installed, at GRANTOR's discretion, cattle guards with offset gates. Cattle guards and fence gates shall be of steel construction (Powder River type). PETROGLYPH shall have the option of supplying the gates and cattle guards, or reimbursing GRANTOR for the actual costs thereof. PETROGLYPH will grade level and reseed areas disturbed but not used for roads or Facilities and Well Sites.
  - (e) To take reasonable steps to minimize dust from vehicular use on the roads constructed hereunder.
- (f) To post "no trespassing" or other appropriate signs notifying the public that the road right-of-way and subject Property are privately owned. Such sign shall be conspicuously posted on any new roads constructed by PETROGLYPH hereunder:
- (g) To control the growth and spread of noxious weeds on and from the rights-of-way, drill pads, and other areas of the Subject Lands disturbed by PETROGLYPH. For the purposes of this Agreement, noxious weeds shall be those plants listed currently and from time-to-time on the Utah Weed Control List prepared by the Utah Department of Agriculture.

PETROGLYPH may assign the rights and easements herein granted, either in whole or in part, subject to the terms of this grant and Agreement, and such rights and easements shall be covenants running with the land and be binding upon GRANTOR, GRANTOR's heirs, assigns, legal representatives and successors in title. Upon abandonment of any of the rights-of-way or easements granted hereunder, at the request of the GRANTOR PETROGLYPH shall execute and deliver to GRANTOR a document in recordable form evidencing said abandonment.

As full payment and compensation for the rights and easements conveyed and granted and to be conveyed and granted hereunder, including any amounts for damage to growing crops, timber and other vegetation, PETROGLYPH shall remit to the GRANTOR, in conjunction with delivery of notices of surface use and easement, payments equal to Five Hundred Dollars (\$500.00) per acre, or two (2) times the market value per acre, which ever is greater (not to exceed One Thousand Dollars (\$1000.00) per acre), of the lands disturbed or made subject to the uses and easement stated in the notice. Said market value shall be based upon the market value established and maintained by the Duchesne County Assessor for the property subject to the use and/or easement. GRANTOR accepts such payments in full and complete payment, settlement, compromise and satisfaction of any and all losses, liabilities, claims, damages, demands and causes of action relating to any and all injunes and damages to the surface of the land with the exception of PETROGLYPH's duty to reclaim upon abandonment of any of the easements or uses granted herein or upon termination of this Agreement.

GRANTOR reserves the right to the use and enjoyment of the Subject Land except for the purposes herein granted, but such use shall not hinder, conflict, or interfere with PETROGLYPH's surface or sub-surface rights or disturb its Facilities and operations. No road, reservoir, excavation, obstruction or structure shall be constructed, created or maintained on, over, along or within the lands occupied by any Facilities by GRANTOR or with GRANTOR's consent or acquiescence without PETROGLYPH's prior written consent, which consent shall not be unreasonably withheld.

GRANTOR hereby covenants and warrants that it is the surface owner of all of or an undivided interest in the Subject Lands, and has the legal right and authority to enter into this Agreement and grant the rights granted herein.

If, at any time during the term of this Agreement, PETROGLYPH determines that GRANTOR owns all or any portion of the mineral estate underlying the Subject Lands and that all or any portion of that mineral estate are not leased for oil, gas, and other hydrocarbons, GRANTOR agrees to lease same to PETROGLYPH on the following terms and conditions:

- (a) A three (3) year primary term and so long thereafter as there is production in paying quantities;
- (b) annual rentals of \$2.00 per net mineral acre paid up at signing; and
- (c) royalty of 16-2/3%
- (d) PETROGLYPH will provide GRANTOR, at the time of the signing of the oil and gas lease, a copy of a minerals status report identifying the minerals interest owned by GRANTOR.

The rights-of-way, easements, and surface uses granted herein are and will be issued for the full period of development and the production life of the wells, appurtenances and Facilities associated therewith, including reworking and enhanced recovery operations and resultant production. Any right-of-way that is not used for a continuous period of three years shall be deemed abandoned and terminated and shall be reclaimed as herein agreed. In the event PETROGLYPH does not exercise the rights granted herein as to any government surveyed Section (constituting 640 acres, more or less) of the subject Lands (or such smaller portion within any section if GRANTOR does not own all of the surface of such Section) for a period of ten (10) years from the date of this Agreement, this Agreement shall terminate as to that government Section or part thereof.

PETROGLYPH, its successors and assigns, shall at all times exercise reasonable care in its exploration, drilling, completion and production operations to avoid the spilling, improper disposal or release of pollutants, hazardous substances and hazardous waste in, on or under the GRANTOR's property and to comply with all relevant and applicable federal, state and local statutes and regulations, including, but not limited to, all environmental laws now in force and hereinafter enacted.

Upon the termination of this Agreement, the end of the production life of any well or abandonment of any Facilities installed, PETROGLYPH shall have the right of access to the captioned lands in order to restore such well-site, right-of-way or other surface disturbance to the approximate condition it was in prior to commencement of such surface use, so far as is reasonably possible. All reclamation shall be at the sole expense of PETROGLYPH. Said reclamation work and abandonment and plugging of wells shall be done in accordance with federal, state, county, or local laws and regulations in force at such time.

In the event of PETROGLYPH's failure to comply with any material provisions of this Agreement, GRANTOR shall provide PETROGLYPH with notice setting forth the nature of such non-compliance. If the non-

compliance relates to the payment of money as set forth herein, PETROGLYPH shall have thirty (30) days following receipt of such notice to cure such non-compliance. If the non-compliance relates to matters other than the payment of money, PETROGLYPH shall have sixty (60) days to commence, and to pursue diligently to completion, appropriate action to cure the non-compliance. In the event that PETROGLYPH fails to cure, or to commence appropriate action to cure the non-compliance within the prescribed period, GRANTOR may thereupon terminate this Agreement by giving PETROGLYPH 15 days written notice to that effect. Such termination shall not affect prior rights and easements granted PETROGLYPH, its predecessors, successors or assigns under this Agreement or under prior grants, conveyances, or Agreements. In the event of a dispute over compliance or performance under this Agreement, such dispute shall not be grounds for interruption of the performance under this Agreement by either party, nor will PETROGLYPH's operations hereunder be interrupted, delayed, or impaired during the pendency of such dispute. The parties agree to attempt to settle expeditiously all dispute(s) and objection(s) under this Agreement by mediation under the Commercial Mediation Rules of the American Arbitration Association, before resulting to arbitration. If the parties are unable by mediation to resolve or settle the dispute(s) or objection(s), the parties agree to submit such dispute(s) or objection(s) to binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association in effect at the time of arbitration.

If PETROGLYPH is delayed or interrupted in or prevented from performing any acts or obligations provided in this Agreement by acts of God, fires, weather, floods, strikes or labor troubles, breakage of machinery, inability to obtain necessary materials, supplies or labor, interruptions in delivery or transportation, insurrection or mob violence, injunction, regulations or order or requirement of Government or other disabling cause beyond its reasonable control, then and in all such cases PETROGLYPH shall, for the time being and without liability, be excused from performance of such acts or obligations during the period of such prevention, delay or disability. This Agreement and all provisions hereof shall again come into full force and effect immediately upon termination of the period of prevention, delay or disability resulting from any of the causes aforesaid. PETROGLYPH shall give GRANTOR prompt written notice of any periods of such delay or prevention together with the reason or reasons for same. Following termination of such prevention or delay, PETROGLYPH shall give prompt written notice of same to GRANTOR.

All notices under this Agreement shall be given in writing and shall be sent (a) certified mail, return receipt requested, or (b) by Federal Express, or similar overnight carrier service, to the parties at the addresses provided on page 1 of this Agreement. Notices shall be deemed effective when received. Any party may change its address for receipt of notices by sending notice of the change to the other party as provided for in this paragraph.

This Agreement and the grants and conveyances hereunder shall be binding upon the parties and their respective heirs, executors, administrators, successors and assigns. All representations, warrantys, terms, conditions and covenants contained in this Agreement shall survive execution of this Agreement and remain in full force and effect and binding on the parties. This Agreement and all rights and interests granted hereunder or pursuant hereto shall be governed by and construed in accordance with the laws of the State of Utah.

Upon execution of this Agreement, the parties agree to execute and record in the office of the Duchesne County Recorder, a Memorandum of Surface Use and Right-Of-Way Agreement sufficient to provide third parties with notice of the Agreement.

Time is of the essence in the performance of this Agreement and each and every term, covenant and obligation herein.

Ihmoon84.agm

This Agreement and its Exhibits constitute the final written expression of the Agreement between PETROGLYPH and GRANTOR, which Agreement may not be modified except by writing signed by both PETROGLYPH and GRANTOR.

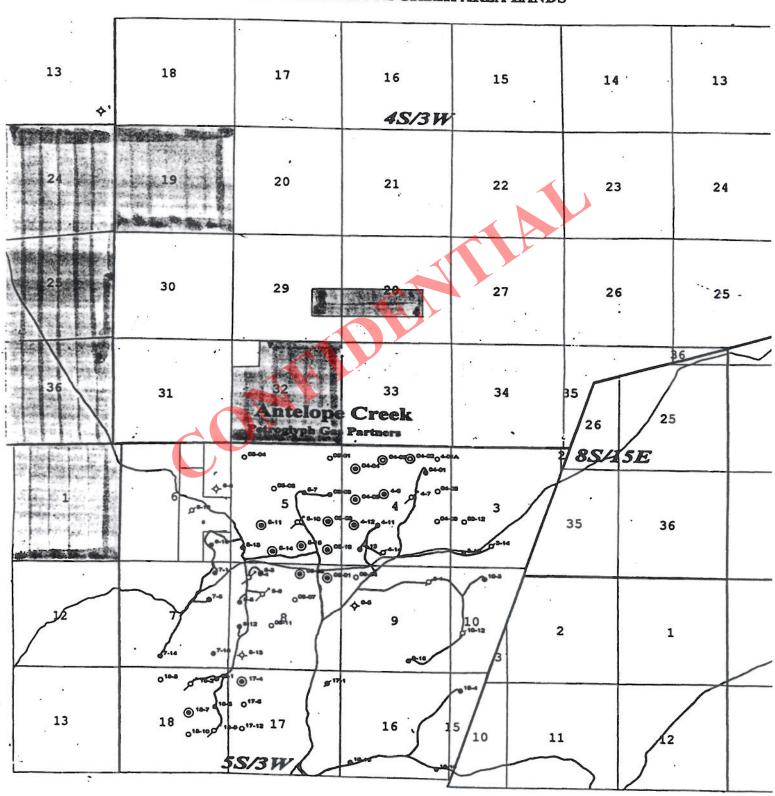
	GRANTOR	LEE H. MOON AND KATHY MOON
		By: Letty Hoon
	GRANTEE	PETROGLYPH OPERATING COMPANY, INC.
		By: Roll to the lits: Agent
07.77		ACKNOWLEDGMENT
STATE OF UTAH	) : ss.	
COUNTY OF DUCHESNE	)	
The foregoing instrum	nent was acknow D KATHY MOO	Medged before me this <u>25<sup>45</sup></u> day of <u>Quae</u> , N, husband and wife.
My Commission Expires:		Charlatte Jensen Notary Public Residing in: Duchesne, W
STATE OF KANSAS COUNTY OF <u>Duches</u>	) : ss.	ACKNOWLEDGMENT  CHARLOTTE JENSEN NOTARY PUBLIC • STATE & UTAH 365 EAST 100 SOUTH P.O. BOX 140 DUCHESNE, UT 84021 COMM EXP. 5-2-98
The foregoing instrum 997, by Ed Grotter NC.	ent was acknow	ledged before me this <u>25<sup>+5</sup></u> day of <u>June</u> , the Agent of PETROGLYPH OPERATING COMPANY,
1y Commission Expires:		Charlott, Jensen Notary Public Residing in: Duchesne, Later CHARLOTTE JENSEN NOTARY PUBLIC · STATE DUTAN
		Page 6  965 EAST 100 SOUTH P.O. BOX 140 DUCHESNE, UT 84021

COMM. EXP. 5-2-98

EXHIBIT A
(continued)
MAP OF DUCHESNE FIELD LANDS

	7				
6 <sup>‡*</sup> .	Duchesne Petroglyph Gas	Field Partners	.3	- 1-462 2	1
7 •1-70	8 <sub>9</sub> 2-8D	9 · •10-•	2-100 (2-100)	11	12
e <sup>4-18</sup> 18 <sub>gr<sup>2-18</sup></sub>	o <sup>7</sup> 17 o <sup>4-170</sup>	16 S/4W	15	14	13
19	20	21	22	23	
30	29	28	<b>27</b>	26	<b>√</b> +6.
31	32	33	34		

EXHIBIT A
(continued)
MAP OF ANTELOPE CREEK AREA LANDS



# **EXHIBIT B**

# NOTICE OF SURFACE USE AND EASEMENT FOR RIGHT OF WAY

Hutchinson, Kansas 67502 (Grantee), hereby gives notice to whose address is	0
subject to the terms and provisions of the Surface	Use and Right-Of-Way Agreement dated
and in	iterests of Grantor as follows:
To establish a multiple use Comidor Right Of Way for herein listed.	or the operations of the Grantee on the lands
In, over, upon and through the following described lands in Du	uchesne, County, Utah:
Township South - Range East - USM Section Use Corrido	
Section Location	acres, m/l.
Said Right-of-Way and surface use to be approximately acres and more particularly described and shown on	ft. in length, ft. in width, and containing the plat attached hereto.
IN WITNESS THEREOF, PETROGLYPH OPERATING to be executed this day of	G COMPANY, INC. has caused this instrument
Ву_	
	•
STATE OF )	
COUNTY OF : ss.	
On the day of	personally appeared before me,
was signed on behalf of said corporation by	The duly sworn did say that he/she is the IG COMPANY, INC. and that said instrument authority of its by least
and a state will all the state of the state	e that said corporation executed the same.
Notary Public Residing in My Commission Expires:	
	*

PETROGLYPH OPERATING CO., INC. P.O. BOX 607 ROOSEVELT, UTAH 84066

November 6, 2013

Ms. Diana Mason State of Utah Division of Oil, Gas & Mining 1594 West North Temple, Suite 1210 P.O. Box 145801 Salt Lake City, UT 84114-5801

Re: Directional Drilling R649-3-11

Ute Tribal 01-07-E4: <u>2451' FNL & 1754' FEL, (Surface Hole)</u>

1930' FNL & 1980' FEL, (Bottom Hole) SW/NE, Sec. 1, T5S, R4W, U.S.B.&M.,

Duchesne County, Utah

Dear Ms. Mason,

Pursuant to the filing of Petroglyph Operating Co., Inc.'s Application for Permit to Drill regarding the above referenced well on November 6, 2013, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- The Ute Tribal 01-10-E4 is located within the Antelope Creek Unit Area.
- Petroglyph Operating Co., Inc. is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and drilling directionally from this location, Petroglyph Operating Co., Inc. will be able to utilize the existing road and pipelines in the area.
- Furthermore, Petroglyph Operating Co., Inc. hereby certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Petroglyph Operating Co., Inc. requests the permit be granted pursuant to R649-3-11.

Respectfully Submitted,

Ed Trotter, Agent P.O. Box 1910 Vernal, UT 84078 Phone: (435)789-4120

Fax: (435)789-1420

E-mail: edtrotter@easilink.com

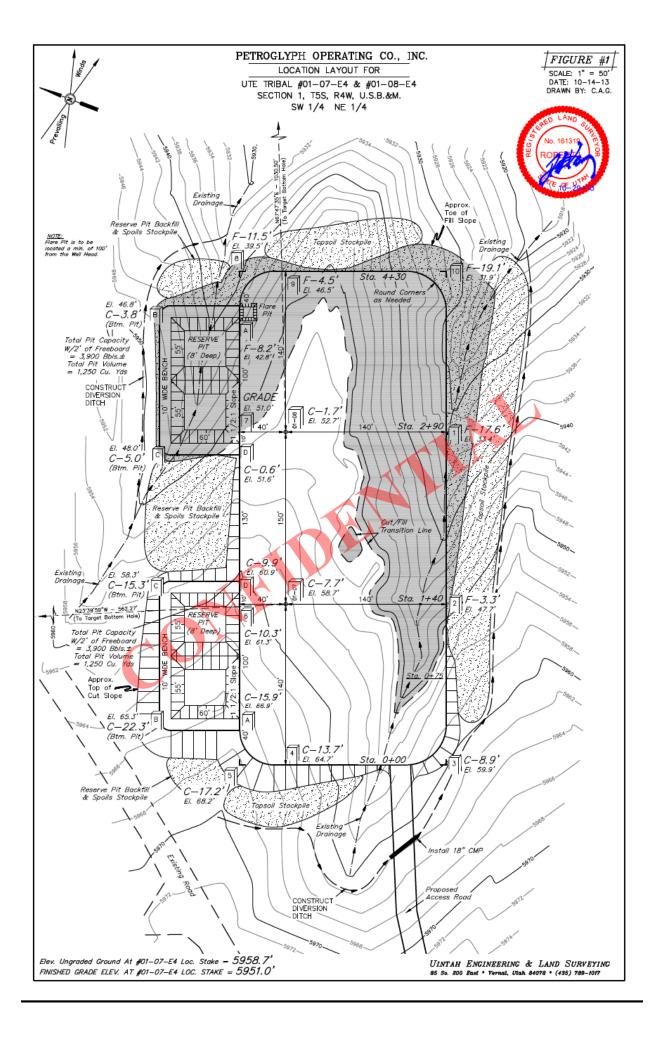
### Certification

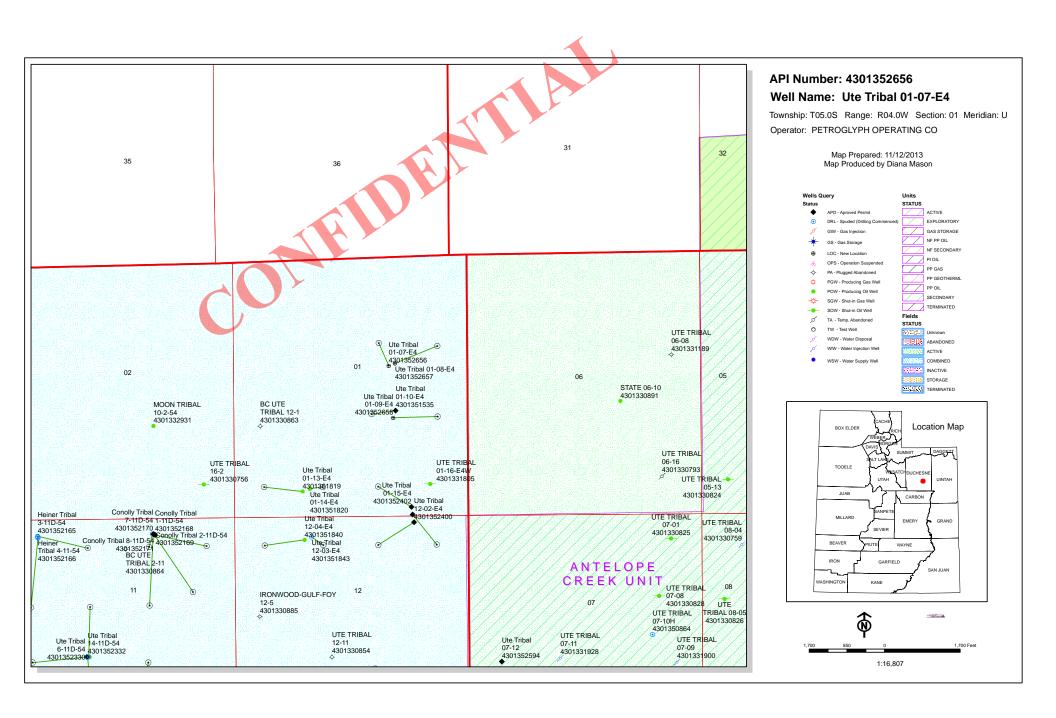
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions that presently exist; that the statements made in the Plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Petroglyph Operating Co., Inc. and its contractors and subcontractors in conformity with this Plan and the terms and conditions under which it is approved.

Please be advised that Petroglyph Operating Co., Inc. is considered to be the operator of the UTE TRIBAL 01-07-E4 Well, located in SW/NE of Section 1, T5S, R4W, Duchesne County, Utah, lease #14-20-H62-4743; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond Coverage is provided under Bond #LPM4138153.

Date

Document1 Page 1 of 1





# ON-SITE PREDRILL EVALUATION Utah Division of Oil, Gas and Mining

**Operator** PETROGLYPH OPERATING CO

Well Name Ute Tribal 01-07-E4

API Number 43013526560000 APD No 9009 Field/Unit BRUNDAGE CANYON

Location: 1/4,1/4 SWNE Sec 1 Tw 5.0S Rng 4.0W 2451 FNL 1754 FEL

GPS Coord (UTM) Surface Owner Brian T. Bawden

### **Participants**

Rodrigo Jurado, Les Farnsworth, John Weight, Chris Lock (Petroglyph Operating and landowner); Ed Trotter (Land Agent); David Gordon, David & Nick (BLM); Dennis Ingram (Utah Division of Oil, Gas & Mining)

## Regional/Local Setting & Topography

The Ute Tribal 01-07-E4 well is proposed in the SW/NE of Section 1, Township 5 South, Range 4 West. This pad is in northeastern Utah on the southern boundary of the Uintah Basin, approximately 7.1 miles south/southwest of the Bridgeland/U.S. Highway 40 junction, along the Antelope Canyon road one mile south of the Antelope/Sowers Canyon Junction, and proposed as a multi-well pad with the Ute Tribal 01-08-E4 as a second well. Broad, bench like habitat slopes north from Anthro Mountain into the Uintah Basin, having the lowest elevation at the Duchesne River. These broad benches have numerous drainages that drain the high country northerly, with Sowers Canyon being one of the primary arteries. This well pad is positioned approximately 0.5 miles west of Sowers Canyon along its western rims, in rolling hills with sparse cedar tree habitat and short, desert-like sagebrush country, on a narrow, fingered east/west ridge that drops into the canyon below. The immediate surface area is a south-easterly sloping ridge top that drops into Sowers Canyon.

#### Surface Use Plan

Current Surface Use

Wildlfe Habitat Deer Winter Range

New Road Miles Src Const Material Surface Formation

0.059 Width 240 Length 430 Onsite UNTA

**Ancillary Facilities** N

#### Waste Management Plan Adequate?

#### **Environmental Parameters**

Affected Floodplains and/or Wetlands N

#### Flora / Fauna

Sparse vegetation, cedar tree, sagebrush, rabbit brush, bunch grass, prickly pear cactus; mule deer winter range, littered with tracks, elk potential, coyote, rabbit, fox, raptor nest in area, no details.

#### Soil Type and Characteristics

RECEIVED: March 11, 2014

Tan, fine-grained sandy loam with small gravels and underlying sandstone

#### **Erosion Issues** Y

on fill slopes after dirt work is completed

#### **Sedimentation Issues** Y

#### Site Stability Issues N

#### **Drainage Diverson Required?** Y

Divert any and all drainages around well pad and tie back into existing drainage below or southeast of pad to reduce erosion

## Berm Required? Y

# **Erosion Sedimentation Control Required?** N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

#### Reserve Pit

Site-Specific Factors	Site Rai	nking	
Distance to Groundwater (feet)	>200	0	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	High permeability	20	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	4 5	1 Sensitivity Level

#### Characteristics / Requirements

Reserve it proposed off the northwest corner of location in cut, measuring 60' wide by 110' long by 8' deep.

Closed Loop Mud Required? Liner Required? Y Liner Thickness 16 Pit Underlayment Required?

## **Other Observations / Comments**

Two well pad in open desert habitat, BLM claims potential sage grouse habitat, surface owned by operator, shallow drainages along the northwest and southwest corners need diverted, no issue with this well but the second well planned on this pad, the UT 01-08-E4 planned for the eastern portion of this pad will need the reserve pit moved south of its staking until the eastern dike is in cut rather than fill. No other comments.

Dennis Ingram 2/25/2014

RECEIVED: March 11, 2014

Evaluator Date / Time

# Application for Permit to Drill Statement of Basis

# Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner CBM
9009	43013526560000	LOCKED	OW	P No
Operator	PETROGLYPH OPERATING	G CO	Surface Owner-A	APD Brian T. Bawden
Well Name	Ute Tribal 01-07-E4		Unit	
Field	BRUNDAGE CANYON		Type of Work	DRILL
Location	SWNE 1 5S 4W U	2451 FNL	1754 FEL GPS Cod	ord
	(UTM) 561277E 44366	15N		

### **Geologic Statement of Basis**

The mineral rights for the proposed well are owned by the Ute Tribe. The BLM will be the agency responsible for evaluating and approving the drilling, casing and cement programs.

Brad Hill **APD Evaluator** 

3/5/2014 **Date / Time** 

#### **Surface Statement of Basis**

A presite to permit a two well pad, the Ute Tribal 01-07-E4 and the Ute Tribal 01-08-E4 were jointly scheduled and performed in conjunction on February 25, 2014, to take input and address issues regarding the construction and drill of these wells. According to Petroglyph, they have purchased this land and is now the owner of record. The operator and the BLM were both invited to the presite. The BLM representative commented that this surface is in a potential sage grouse habitat area although there wasn't any known bird activity mentioned.

The surface at the proposed wellsite does slope to the east, southeast, having two drainages that cut across the northern portion of the operators second reserve pit and across the southwestern location edge. Both of these drainages take storm water or snowmelt southeasterly and will need diverted around the location and tied back into the existing drainage like shown on the cut and fill sheet.

The reserve pit for this well is staked along the northwestern corner of the proposed well pad in cut, and will require a 16 mil synthetic liner to help contain the drilling fluids. The easterly reserve pit that is proposed for the Ute Tribal 01-08-E4 on this same pad will need moved westerly to prevent the downhill dike from being in fill. It appears fifty to sixty feet might be enough to eliminate the need for fill along that eastern dike. This well is planned as a central battery for these two wells and the Ute Tribal 01-09-E4 and 01-10-E4 wells that will be piped to this location. Therefore, the location shall have adequate berming to prevent fluids or spills from leaving the well site. Since this well is a split estate well, an Arch study was done by the operator to address concerns from the BLM.

Dennis Ingram 2/25/2014
Onsite Evaluator Date / Time

### Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.

RECEIVED: March 11, 2014

Pits The reserve pit should be located on the north side of the location.

Surface The well site shall be bermed to prevent fluids from leaving the pad.

Surface Drainages adjacent to the proposed pad shall be diverted around the location.



# WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 11/6/2013 **API NO. ASSIGNED:** 43013526560000

WELL NAME: Ute Tribal 01-07-E4

OPERATOR: PETROGLYPH OPERATING CO (N3800) PHONE NUMBER: 435 789-4120

**CONTACT:** Ed Trotter

**LEASE NUMBER:** 1420H624743

PROPOSED LOCATION: SWNE 01 050S 040W Permit Tech Review:

SURFACE: 2451 FNL 1754 FEL Engineering Review:

BOTTOM: 1930 FNL 1980 FEL Geology Review:

COUNTY: DUCHESNE

LATITUDE: 40.07758

LONGITUDE: -110.28133

PROPOSED PRODUCING FORMATION(S): WASATCH

**LOCATION AND SITING:** 

Unit:

UTM SURF EASTINGS: 561277.00 NORTHINGS: 4436615.00 FIELD NAME: BRUNDAGE CANYON

LEASE TYPE: 2 - Indian

SURFACE OWNER: 4 - Fee COALBED METHANE: NO

#### RECEIVED AND/OR REVIEWED:

**Commingling Approved** 

Comments:

Bond: STATE/FEE - LPM4138153

**▶** PLAT R649-2-3.

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-13

Water Permit: 43-8342 Board Cause No: R649-3-11

RDCC Review: Effective Date:

Fee Surface Agreement Siting:

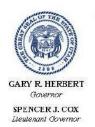
Intent to Commingle R649-3-11. Directional Drill

<del>---</del>-----

Stipulations: 1 - Exception Location - bhill

Presite Completed

4 - Federal Approval - dmason 5 - Statement of Basis - bhill 15 - Directional - dmason 23 - Spacing - dmason



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

### Permit To Drill

\*\*\*\*\*\*

Well Name: Ute Tribal 01-07-E4
API Well Number: 43013526560000
Lease Number: 1420H624743
Surface Owner: FEE (PRIVATE)

**Approval Date:** 3/11/2014

### Issued to:

PETROGLYPH OPERATING CO, 960 Broadway Avenue, Ste 500, Boise, ID 83703

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-11. The expected producing formation or pool is the WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### **Exception Location:**

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled,

completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

### **Additional Approvals:**

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
  - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

#### **Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

### Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month

- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas

# **UNITED STATES** DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

**BUREAU OF LAND MANAGEMENT** 

NOV 1 4 2013

Lease Serial No. 1420H624743

	_				
5.	If	Indian.	Allottee	or Tribe	Nam

APPLICATION FOR PERMIT	TO DRILL OR RE	ENTER	6. If Indian, Allottee or Ti	ribe Name
1a. Type of Work: DRILL REENTER	CONFID	ENTALITAT	Unit or CA Agreeme 420H624650	nt, Name and No.
1b. Type of Well: Gas Well Gas Well	ther 🔀 Sing	tle Zone	8. Lease Name and Well N UTE TRIBAL 01-07-E	No. :4
2. Name of Operator Contact PETROGLYPH OPERATING CO., INDIA:	· ED H TROTTER		9. API Well No.	7151
3a. Address P.O. BOX 607 ROOSEVELT, UT 84066	3b. Phone No. (included Ph: 435-789-4120) Fx: 435-789-1420	0	10. Field and Pool, or Exp ANTELOPE CREE	loratory
4. Location of Well (Report location clearly and in accorded	ance with any State requi	rements.*)	11. Sec., T., R., M., or Blk	. and Survey or Area
At surface SWNE 2451FNL 1754FEL		RECEIVED	Sec 1 T5S R4W Me	er UBM
At proposed prod. zone SWNE 1930FNL 1980FEL				
<ol> <li>Distance in miles and direction from nearest town or post 15.66 MILES SOUTHWEST OF MYTON, UTAH</li> </ol>	office*	APR <b>0 2</b> 2014	12. County or Parish DUCHESNE	13. State UT
<ol> <li>Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1754</li> </ol>	16. No. of Acres in Le	DIV. OF OIL, GAS & MINI	<b>№</b> . Spacing Unit dedicated	to this well
<ol> <li>Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.</li> <li>3234</li> </ol>	19. Proposed Depth 7151 MD 7103 TVD		20. BLM/BIA Bond No. on LPM4138153	file
21. Elevations (Show whether DF, KB, RT, GL, etc. 5951 GL	22. Approximate date 01/15/2014	work will start	23. Estimated duration 45 DAYS	
	24. Attac	chments		
<ol> <li>The following, completed in accordance with the requirements of</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Systes SUPO shall be filed with the appropriate Forest Service Off.)</li> </ol>	em Lands, the	<ul> <li>der No. 1, shall be attached to the</li> <li>4. Bond to cover the operation Item 20 above).</li> <li>5. Operator certification</li> <li>6. Such other site specific informathorized officer.</li> </ul>	s unless covered by an existing	
25. Signature (Electronic Submission)	Name (Printed/Typed) LESTER FARNS	WORTH Ph: 435-722-2	531	Date 11/08/2013
Title DISTRICT MANAGER			**	
Approved by (Signature)	Name (Printed/Typed)	Jerry Kenczka		Date MAR 2 8 2014
Assistant Field Manager Lands & Mineral Resources	Office VERNAL	FIELD OFFICE		,
Application approval does not warrant or certify the applicant hole	ds legal or equitable title to TIONS OF APPRO	to those rights in the subject lease OVAL ATTACHED	e which would entitle the appl	licant to conduct

Additional Operator Remarks (see next page)

Electronic Submission #226213 verified by the BLM Well Information System For PETROGLYPH OPERATING CO., INC., sent to the Vernal Committed to AFMSS for processing by LESLIE BUHLER on 11/14/2013 ()

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United

NOTICE OF APPROVAL

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUB



### UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE** 170 South 500 East

**VERNAL, UT 84078** 

(435) 781-4400



### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

PETROGLYPH OPERATING CO

UTE TRIBAL 01-07-E4

API No: 43-013-52656 Location:

SWNE SEC 01 T05S R04W

Lease No: Agreement: 1420H624743 1420H624650

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER: (435) 781-3420** 

### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

### **NOTIFICATION REQUIREMENTS**

-	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
-	Twenty-Four (24) hours prior to spudding the well.
-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov.
-	Twenty-Four (24) hours prior to initiating pressure tests.
-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.
	-

# SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- Paint all production facilities and equipment, not otherwise regulated (OSHA, etc.), Covert Green.
- All areas of disturbance (including surface pipelines) must have appropriate surface use agreements or approvals in place with the proper owner and/or agency before such action is started.
- The conditions of approval, as set forth by those owners and/or agencies, shall be adhered to.
- Stationary internal combustion engines would comply with the following emission standards: 2 g/bhp-hr of NOx for engines less than 300 HP and 1 g/bhp-hr of NOx for engines over 300 HP.
- Either no or low bleed controllers would be installed on pneumatic pumps, actuators or other pneumatic devices.
- VOC venting controls or flaring would be utilized for oil or gas atmospheric storage tanks.
- VOC venting controls or flaring would be used for glycol dehydration and amine units.
- Where feasible, green completion would be used for well completion, re-completion, venting, or planned blowdown emissions. Alternatively, use controlled VOC emissions methods with 90% efficiency.

### DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

### SITE SPECIFIC DOWNHOLE COAs:

- Cement for the production casing will be brought to a minimum of 200 feet above the surface casing shoe.
- A CBL shall be run in the production casing to from PBTD to TOC.
- Variances to OO2, Section III.E shall be granted as requested regarding the air drilling program for the surface hole.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the
  daily drilling report. Components shall be operated and tested as required by Onshore Oil &
  Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be
  performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be
  reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.

Page 4 of 6 Well: UTE TRIBAL 01-07-E4 3/26/2014

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water
  is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM
  Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum
   Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in CD (compact disc) format to the Vernal BLM Field Office. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written
  communication and must be received in this office by not later than the fifth business day
  following the date on which the well is placed on production. The notification shall provide, as a
  minimum, the following informational items:
  - o Operator name, address, and telephone number.
  - o Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).

- Date well was placed in a producing status (date of first production for which royalty will be paid).
- o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
- o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
- Unit agreement and/or participating area name and number, if applicable.
- Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will
  be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be
  reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major
  Events" will be reported in writing within 15 days. "Minor Events" will be reported on the
  Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.
- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field
  Office Petroleum Engineers will be provided with a date and time for the initial meter calibration
  and all future meter proving schedules. A copy of the meter calibration reports shall be
  submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API
  standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All
  measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted
  to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs
  first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be
  adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively
  sealed in accordance with Onshore Oil & Gas Order No. 3.

Page 6 of 6 Well: UTE TRIBAL 01-07-E4 3/26/2014

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior
  approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30
  days, prior approval of the BLM Vernal Field Office shall be obtained and notification given
  before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office
  Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in
  order that a representative may witness plugging operations. If a well is suspended or
  abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent
  Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual
  plugging of the well bore, showing location of plugs, amount of cement in each, and amount of
  casing left in hole, and the current status of the surface restoration.

			FORM 9				
	STATE OF UTAH		FORM 9				
,	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: 1420H624743				
SUNDR	RY NOTICES AND REPORTS (	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE				
	pposals to drill new wells, significantly or reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME:				
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Ute Tribal 01-07-E4				
2. NAME OF OPERATOR: PETROGLYPH OPERATING O	9. API NUMBER: 43013526560000						
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste		<b>PHONE NUMBER:</b> 208 685-7685 Ext	9. FIELD and POOL or WILDCAT: BRUNDAGE CANYON				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451 FNL 1754 FEL			COUNTY: DUCHESNE				
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWNE Section: (	HIP, RANGE, MERIDIAN: 01 Township: 05.0S Range: 04.0W Meric	lian: U	STATE: UTAH				
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA				
TYPE OF SUBMISSION		TYPE OF ACTION					
	ACIDIZE	ALTER CASING	CASING REPAIR				
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME				
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION				
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK				
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	_						
4/15/2014	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON				
DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL				
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION				
	WILDCAT WELL DETERMINATION	OTHER	OTHER:				
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  This well was spud on 4/15/14 at approximately 11:00 A.M. Using a Bucket Rig (BR 2) provided by Craig's Roustabout Service, Vernal Utah; we set 60' of 16" Conductor. Please contact our staff if you have any questions.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 15, 2014							
NAME (PLEASE PRINT) Rodrigo Jurado	<b>PHONE NUMBE</b> 435 722-5302	Regulatory & Compliance S	pc				
SIGNATURE N/A		<b>DATE</b> 4/15/2014					



# BLM - Vernal Field Office - Notification Form

Operator Petroglyph Operating Rig Name/# Craig's /Pro Petro							
Submitted By Rodrigo Jurado Phone Number 435-722-5302							
Well Name/Number <u>Ute Tribal 01-07-E4</u>							
Qtr/Qtr <u>SWNE</u> Section <u>01</u> Township <u>5S</u> Range <u>4W</u>							
Lease Serial Number <u>14-20-H62-4743</u>							
API Number43-013-52656							
<u>Spud Notice</u> – Spud is the initial spudding of the well, not drilling out below a casing string.							
Date/Time AM							
Casing – Please report time casing run starts, not cementing times.  Surface Casing Intermediate Casing Production Casing Liner Other							
Date/Time <u>04/18/2014</u>							
BOPE							
☐ Initial BOPE test at surface casing point ☐ BOPE test at intermediate casing point ☐ 30 day BOPE test ☐ Other							
Date/Time AM [] PM []							

Remarks We plan to run +/- 500' of 8-5/8" J-55 Surface Casing at the time indicated. (Sent 4/16/2014 @ 10:45 A.M.)

# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

Ope					
Ope	Operator Account Number: N 3800				
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00	Sec	Two	Pna	County	
SWNE	1	58	4W	Duchesne	
	pud Dat	te		ity Assignment	
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QQ	Sec	Twp	Rng	County	
S	pud Dat	е	Entity Assignmen Effective Date		
QQ	Sec	Twp	Rng	County	
Spud Date		Entity Assignmen Effective Date			
			<u> </u>		
	ed the Ute T	SWNE 1 Spud Date 4/15/201  ed the Ute Tribal 01-  QQ Sec  Spud Date	SWNE 1 5S  Spud Date  4/15/2014  ed the Ute Tribal 01-07-E4 Ta  QQ Sec Twp  Spud Date	SWNE 1 5S 4W  Spud Date Ent E  4/15/2014	

APR 17 2014

Sundry Number: 50455 API Well Number: 43013526560000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9  5.LEASE DESIGNATION AND SERIAL NUMBER:
	DIVISION OF OIL, GAS, AND MININ	IG	1420H624743
	RY NOTICES AND REPORTS OF		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	oposals to drill new wells, significantly deoreenter plugged wells, or to drill horizontant for such proposals.	epen existing wells below Il laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Ute Tribal 01-07-E4
2. NAME OF OPERATOR: PETROGLYPH OPERATING (	;o		9. API NUMBER: 43013526560000
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste		HONE NUMBER: 08 685-7685 Ext	9. FIELD and POOL or WILDCAT: BRUNDAGE CANYON
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451 FNL 1754 FEL			COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSI Qtr/Qtr: SWNE Section:	HIP, RANGE, MERIDIAN: 01 Township: 05.0S Range: 04.0W Meridia	ın: U	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
This well is curr Petroglyph Operatir a new TD of 7920' the approved progration the lower portion adjusted accordir	CHANGE WELL STATUS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show all pently permitted to be drilled to ng proposes to deepen the well MD, 7903'TVD. The well will be arm except for the change depen of production casing. Cemerally to ensure cement is circulated.  PRODUCTION START OR RESUME  PRODUCT	a TD of 7151'MD. I referenced above to e drilled according to oth and an upgrade to nt volumes will be ated to surface with	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER:  DEPths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining  Date: April 30, 2014  By:
NAME (PLEASE PRINT) Rodrigo Jurado	<b>PHONE NUMBER</b> 435 722-5302	TITLE Regulatory & Compliance S	рс
SIGNATURE N/A		DATE 4/30/2014	

### CONFIDENTIAL

# NINE POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 01-07-E4 SW NE, SEC 1, T5S, R4W DUCHESNE COUNTY, UTAH

### 1. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Formation		Subsea	TVD	MD
Rig KB=~13' above GGL		5964	0	0
Surface Formation = <b>Uinta</b>				
Uinta		5951	13	13
Green River		4700	1264	1267
Trona		3328	2636	2663
Mahogany Shale		3178	2786	3959
"B" Marker	od val	2036	3928	3974
"X" Marker	floc	1537	4427	4475
Douglas Creek Marker	Waterflood Unit Interval	1393	4571	4619
"B" Limestone	_ Wa Jni	984	4980	4928
Base Castle Peak Limestone	1 -	450	5514	5562
Uteland Butte		46	5918	5966
Wasatch		-239	6203	6251
Formation at TD: Wasatch Ri	ig TD	-1939	7903	7920

# 2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS:

Substance	Formation	Subsea	TVD	MD
Base of moderately saline ground	not present	6000	NA	NA
water*				
Oil/Gas	Uteland Butte	46	5918	5966
Oil/Gas	Wasatch	-239	6203	6251

Any water encountered during drilling shall be sampled, analyzed and reported to BLM, Vernal office using State of Utah DOGM Form 7 Report of Water Encountered during Drilling. The following analyses shall be performed on any water encountered:

Flow rate (or blowtest) Temperature pH TDS

Dissolved Iron Dissolved Magnesium Dissolved Bicarb. Dissolved Sulfate
Dissolved Calcium Dissolved Sodium Dissolved Carbonate Dissolved Chloride

All depths through the "Base of moderately saline ground water", along with any water encountered below that depth which is less than 10,000 TDS, shall be protected by the surface casing or by lifting the cement of the production casing into the surface casing.

<sup>\*</sup>Base of Moderately Saline Groundwater from Howells, Longson and Hunt, 1981, Utah State Technical Publication 92: The Base of the Moderately Saline Water in the Uinta Basin, Utah



## **CONFIDENTIAL**

# NINE POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 01-07-E4 SW NE, SEC 1, T5S, R4W DUCHESNE COUNTY, UTAH

### 3. PROPOSED CASING PROGRAM:

String	Hole	Casing	Top - MD	Bottom - MD	Weight lb/ft	Grade	Thread
Conductor	20"	14"	surface	53'	steel	Cond'r	none
Surface	12-1/4"	8-5/8"	surface	493'	24	J-55	STC
Production	7-7/8"	5-1/2"	surface	6300'	15.5	J-55	LTC
Production	7-7/8"	5-1/2"	6300'	7920'	17	N-80	LTC

String	Hole	Casing	Collapse	Burst	Tensile
Surface	12-1/4"	8-5/8"	1,370 psi	2,950 psi	244,000 lb
Production	7-7/8"	5-1/2"	4,040 psi	4,810 psi	248,000 lb
Production	7-7/8"	5-1/2"	6,280 psi	7,740 psi	348,000 lb

- All casing will be new or inspected.
- The surface and production strings shall have a minimum of one (1) centralizer on each of the bottom three (3) joints.
- The production string shall have a <u>minimum</u> of one (1) centralizer for every three (3) joints from TD to the top of the "B" marker at 3974'MD.

### 4. PROPOSED CEMENTING PROGRAM:

String	Тор	Cement Description	Sacks	Excess	Weight	Yield
String	Bottom	Cement Description	Vol (ft³)	LXCESS	(ppg)	(ft³/sk)
Conductor	0 53	Construction Grade Cement	Sufficien	it volumes	to grout Co	onductor
Surface	0 493	Class G +2% CaCl2 +0.25 lb/sk Cello Flake	226 264	30%	15.8	1.17
Production Lead	0 3974	EXPANDACEM (Class G +additives) + 1 lb/sk Granulite TR¼ (LCM)	466 895	30%	12.5	1.92
Production Tail	3974 7920	EXPANDACEM (Class G +additives) +1 lb/sk Granulite TR¼ (LCM)	609 889	30%	13.4	1.46

- The 8-5/8" surface casing shall be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.
- The 5-1/2" production casing shall be cemented back to surface. In the event that during the primary cementing operation the cement does not circulate to surface, a remedial cementing operation shall be performed only if necessary to lift cement above the Surface Casing Shoe at 493'MD.



## **CONFIDENTIAL**

NINE POINT DRILLING PLAN
PETROGLYPH OPERATING COMPANY, INC
UTE TRIBAL 01-07-E4
SW NE, SEC 1, T5S, R4W
DUCHESNE COUNTY, UTAH

### 5. MINIMUM PRESSURE CONTROL AND SAFETY EQUIPMENT:

- An 8", 2000 PSI, Double Ram BOPE with Hydraulic Closing Unit shall be used.
- A 2000 PSI Working Pressure Annular shall be used.
- The flowline shall have a minimum diameter of 10".
- Auxiliary equipment shall be a Kelly Cock, Bit Float, and a TIW valve with drill pipe threads.
- Spark arrestors shall be equipped on all engine exhausts within 100 feet of the wellbore.
- See attached 2,000 psi BOP schematic diagram.

### **BOPE TESTING PROCEDURE:**

• The BOPE shall be tested by a professional tester to conform to Onshore Order #2.

### 6. MUD PROGRAM:

### A. SURFACE HOLE

- The surface hole will be drilled with an air/mist system from 0' to 493'. All cuttings shall be directed to pit.
- A trailer-mounted compressor with a capacity of 2000 CFM will be used. Compressor will have a safety shut-off valve located less than 15 feet from the driller's controls of the rig.
- The rat and mouse holes will be drilled with the air rig after surface casing is cemented.
- The 140 barrel water truck used with the deduster will be the source of kill fluid in the highly unlikely event of pressure being encountered during drilling of the surface hole.
- Operator requests the following variances from Onshore Order 2 part E during drilling of the surface hole. Operator will use air drilling techniques only on surface hole:
  - Operator requests a variance to regulations requiring the blooie line discharge to be 100' from the wellbore. Due to reduced location size, the blooie line discharge will be approximately 75' from the wellbore and securely anchored.
  - Operator requests a variance to regulations requiring an automatic igniter or continuous pilot light on the blooie line. A mister shall be on the end of the blooie line.
  - Operator requests a variance to regulations requiring compressors be located in the opposite direction from the blooie line; a minimum of 100' from the wellbore. Due to the reduced location size, the compressors shall be located as close as is reasonable to the opposite direction from the blooie line and 75' from the wellbore.
  - Operator requests a variance to regulations requiring a BOPE on the hole when drilling the surface hole. An air bowl shall be utilized on the diverter system in place of a BOPE.



## **CONFIDENTIAL**

# NINE POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 01-07-E4 SW NE, SEC 1, T5S, R4W DUCHESNE COUNTY, UTAH

### **B. PRODUCTION HOLE**

- The production hole shall be drilled with a freshwater polymer system from 493' to 7920'. LSND mud if conditions warrant.
- Clay inhibition and hole stability shall be achieved with a Diammonium Phosphate (DAP) additive or similar source of clay-stabilizing ions. Anticipated mud weight is 8.3-8.8 lbs/gal. although mud weight up to 10lbs/gal may be used if necessary to prevent wellbore wall instability due to the planned inclination of the well.
- All cuttings and circulating medium shall be directed into the reserve pit. Total Dissolved Solids (TDS) are anticipated to be less than 3000 PPM.
- Sufficient mud inventory will be maintained on location in either tanks or the reserve pit during the drilling of the production hole to handle any adverse conditions that may arise.
- If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite. Enough material shall be maintained on location to allow for the mudweight to be raised to 10 lbs/gal should need arise.
- During drilling operations, pit levels and flow from the well shall be monitored by instrumentation to include at least: a pit volume totalizer (PVT), a stroke counter, and a mud-flow indicator.
- A mud-gas separator shall be available on location.

### C. HAZARDOUS MATERIALS AND POLLUTANTS

- Chromate additives **shall NOT** be used in the mud system on Indian lands without prior DOGM approval to ensure adequate protection of freshwater aquifers.
- Chemicals subject to reporting under SARA Title III in an amounts equal to or greater than 10,000 pounds annually **shall NOT** be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of this well.
- Extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities shall NOT be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of this well.
- Hazardous substances specifically listed by the EPA as a hazardous waste, as defined in 40 CFR 261 (D), or any substances that through their use would lead to the generation of a hazardous waste, **shall NOT** be used in association with the drilling, testing, or completion of this well.



## **CONFIDENTIAL**

# NINE POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 01-07-E4 SW NE, SEC 1, T5S, R4W DUCHESNE COUNTY, UTAH

### 7. EVALUATION PROGRAM:

Logs: Triple Combo TD to base of surface casing (AIT, DSN, CDL)

Base of surface casing to surface (GR only)

Cores: None planned

DST: None planned

Testing: Operator plans no testing until the completion phase of the well.

### 8. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

- Operator anticipates Bottom Hole Temperatures below 150°F, the maximum temperature for DAP drilling fluids.
- No H<sub>2</sub>S has been encountered or is known to exist from previous drilling in the area at this depth.
- Maximum pressure for hydrocarbon bearing zones at native conditions in this area is approximately 1980 PSI (0.25 PSI/ft gradient).
- This well is NOT in the vicinity of active injection wells. Nearby active injection can cause pressures up to a 0.433 PSI/ft gradient.

### 9. DIRECTIONAL WELL PLAN:

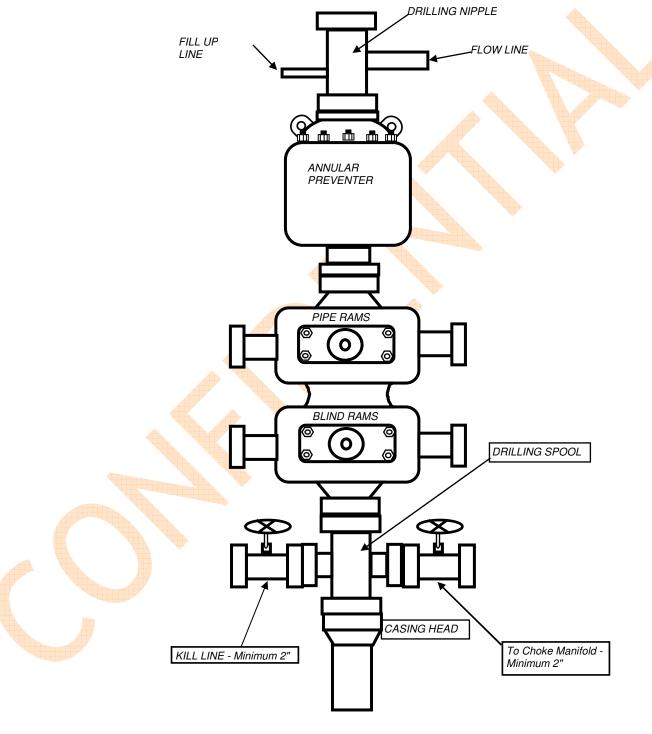
- Well shall be drilled directionally in order to limit surface disturbance.
- A Positive Displacement Motor with a bent sub of 1.25° to 1.75° will be used to control well path.
- A directional survey shall be taken at least one (1) time per 100' of drilling.
- Anti-collision equipment will not be used as there are no existing wells in the vicinity of the proposed well path.
- While cutting the Waterflood Unit Interval from 3974' to 5966', the actual well path may be allowed to vary up to 100' horizontally from plan in order to prevent excessive slide drilling. Above and below the Waterflood Unit Interval, variances in excess 100' horizontally from plan may be allowed.
- Directional drilling plan is attached.



# **CONFIDENTIAL**

NINE POINT DRILLING PLAN
PETROGLYPH OPERATING COMPANY, INC
UTE TRIBAL 01-07-E4
SW NE, SEC 1, T5S, R4W
DUCHESNE COUNTY, UTAH

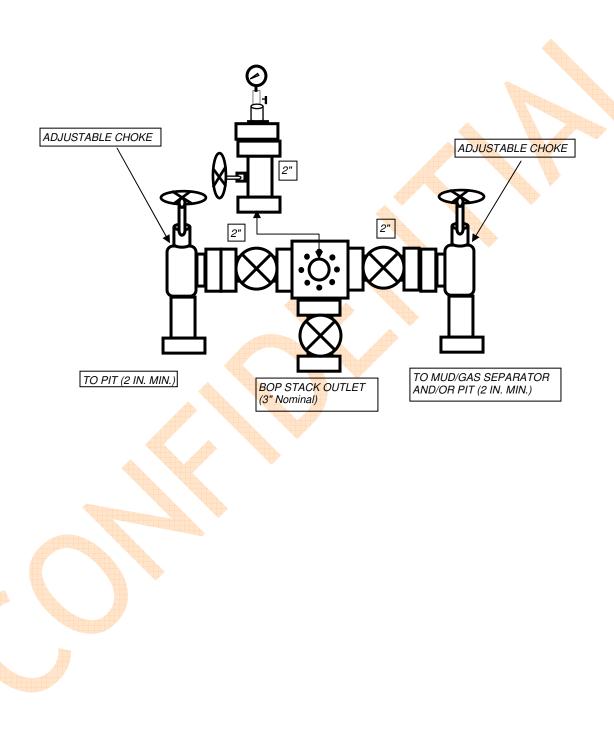
# TYPICAL 2,000 p.s.i. BLOWOUT PREVENTER



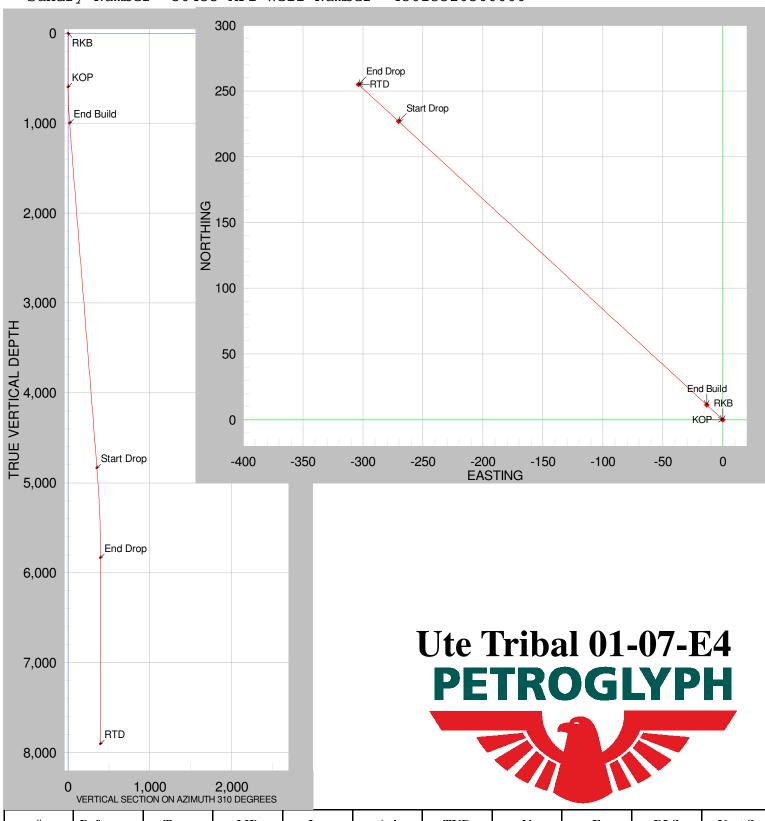


# **CONFIDENTIAL**

NINE POINT DRILLING PLAN
PETROGLYPH OPERATING COMPANY, INC
UTE TRIBAL 01-07-E4
SW NE, SEC 1, T5S, R4W
DUCHESNE COUNTY, UTAH
TYPICAL 2,000 p.s.i. CHOKE MANIFOLD







#	Reference	Type	MD	Inc	Azi	TVD	N	E	DLS	Vert S
0	RKB	Tie Point	0.00	0.00	0.00	0.00	0.00	0.00		0.00
1	КОР	Vertical	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00
2	End Build	Build	1000.00	5.00	310.00	999.49	11.21	-13.36	1.25	17.44
3	Start Drop	Tangent	4850.00	5.00	310.00	4834.84	226.90	-270.41	0.00	352.99
4	End Drop	Drop	5850.00	0.00	0.00	5833.57	254.93	-303.81	0.50	396.60
5	RTD	Vertical	7920.00	0.00	0.00	7903.57	254.93	-303.81	0.00	396.60

RECEIVED: Apr. 30, 2014

SES - Stoner Engineering Software

	01-07-E4, Plan 1											
Operator Field Well Name Plan				Units	feet, %100ft Duchesne UT		08:47 Vertic	Wednesday, April al Section Azimuth Calculation Method Database	Minimum Curvature			
Locatio		2451' FNL 8	k 1754' FEL B	HL: 1930' F	FNL & 1980'	MapZone	!	Lat Long	Ref			
Sit	FEL te					SurfaceX		Surface L	.ong			
Slot Nam Well Numbe Proje	er		UWI API			SurfaceY Z Datum Surface Z	ı	Surface Ground L				
DIRECTION	AL WELL P	LAN										
MD*	INC*	AZI*	TVD*	N*	<b>E</b> *	DLS*	V. S.*	MapE*	MapN* SysTVD*			
*** RKB (at	t MD = 0.0	)0)	ft	ft	ft	º/1 nnft	ft	ft	ft ft			
0.00	0.00	0.0	0.00	0.00	0.00		0.00					
50.00	0.00	0.0	50.00	0.00	0.00	0.00	0.00					
100.00	0.00	0.0	100.00	0.00	0.00	0.00	0.00					
150.00	0.00	0.0	150.00	0.00	0.00	0.00	0.00					
200.00	0.00	0.0	200.00	0.00	0.00	0.00	0.00					
250.00	0.00	0.0	250.00	0.00	0.00	0.00	0.00					
300.00	0.00	0.0	300.00	0.00	0.00	0.00	0.00					
350.00	0.00	0.0	350.00	0.00	0.00	0.00	0.00					
400.00	0.00	0.0	400.00	0.00	0.00	0.00	0.00					
450.00	0.00	0.0	450.00	0.00	0.00	0.00	0.00					
500.00	0.00	0.0	500.00	0.00	0.00	0.00	0.00					
550.00	0.00	0.0	550.00	0.00	0.00	0.00	0.00					
*** KOP (at			000.00	0.00	0.00	0.00	0.00					
600.00	0.00	0.0	600.00	0.00	0.00	0.00	0.00					
650.00	0.63	310.0	650.00	0.18	-0.21	1.25	0.27					
700.00	1.25	310.0	699.99	0.70	-0.84	1.25	1.09					
750.00	1.88	310.0	749.97	1.58	-1.88	1.25	2.45					
800.00	2.50	310.0	799.94	2.80	-3.34	1.25	4.36					
850.00	3.13	310.0	849.88	4.38	-5.22	1.25	6.82					
900.00	3.75	310.0	899.79	6.31	-7.52	1.25	9.81					
950.00	4.38	310.0	949.66	8.59	-10.23	1.25	13.36					
*** END BUI	1LD (at Mi 5.00	D = 1000	.00) 999.49	11.21	-13.36	1.25	17.44					
1050.00	5.00	310.0	1049.30	14.01	-16.70	0.00	21.80					
1100.00	5.00	310.0	1049.30	16.81	-20.04	0.00	26.16					
1150.00	5.00	310.0	1148.92	19.62	-23.38	0.00	30.52					
1200.00	5.00	310.0	1198.73	22.42	-23.36 -26.71	0.00	34.87					
1250.00	5.00	310.0	1248.54	25.22	-30.05	0.00	39.23					
1300.00	5.00	310.0	1298.35	28.02	-33.39	0.00	43.59					
1350.00	5.00	310.0	1348.16	30.82	-36.73	0.00	47.95					
1400.00	5.00	310.0	1397.97	33.62	-40.07	0.00	52.30					
1450.00	5.00	310.0	1447.78	36.42	-43.41	0.00	56.66					
1500.00	5.00	310.0	1497.59	39.22	-46.74	0.00	61.02					
1550.00	5.00	310.0	1547.40	42.02	-50.08	0.00	65.38					
1600.00	5.00	310.0	1597.21	44.83	-53.42	0.00	69.74					

SES - Stoner Engineering Software

01-07-E4, Plan 1											
Operator Field Well Name ( Plan 1							Vertic	Wednesday, April al Section Azimuth Calculation Method Database	Minimum Curvature		
Location		2451' FNL 8	k 1754' FEL E	3HL: 1930' F	FNL & 1980'	MapZon	е	Lat Long	Ref		
Site	FEL					Surface	x	Surface L	ona		
Slot Name			UWI			Surface		Surface			
Well Number	r		API			Z Datur	n				
Project	t					Surface	Z	Ground L	evel		
DIRECTIONAL	- WELL P	LAN									
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*		
1650.00	5.00	310.0	1647.02	47.63	-56.76	0.00	74.09	ft	ft ft		
1700.00	5.00	310.0	1696.83	50.43	-60.10	0.00	78.45				
1750.00	5.00	310.0	1746.64	53.23	-63.44	0.00	82.81				
1800.00	5.00	310.0	1746.64	56.03	-63. <del>44</del> -66.77	0.00	87.17				
1850.00	5.00	310.0	1846.26	58.83	-06.77 -70.11	0.00	91.52				
1900.00	5.00	310.0	1896.07	61.63	-73.45	0.00	95.88				
1950.00	5.00	310.0	1945.88	64.43	-76.79	0.00	100.24				
1000.00	0.00	010.0	10 10.00	01.10	70.70	0.00	100.21				
2000.00	5.00	310.0	1995.69	67.23	-80.13	0.00	104.60				
2050.00	5.00	310.0	2045.50	70.04	-83.46	0.00	108.96				
2100.00	5.00	310.0	2095.31	72.84	-86.80	0.00	113.31				
2150.00	5.00	310.0	2145.12	75.64	-90.14	0.00	117.67				
2200.00	5.00	310.0	2194.93	78.44	-93.48	0.00	122.03				
2250.00	5.00	310.0	2244.74	81.24	-96.82	0.00	126.39				
2300.00	5.00	310.0	2294.55	84.04	-100.16	0.00	130.74				
2350.00	5.00	310.0	2344.36	86.84	-103.49	0.00	135.10				
2400.00	5.00	310.0	2394.17	89.64	-106.83	0.00	139.46				
2450.00	5.00	310.0	2443.97	92.44	-110.17	0.00	143.82				
2500.00	5.00	310.0	2493.78	95.25	-113.51	0.00	148.18				
2550.00	5.00	310.0	2543.59	98.05	-116.85	0.00	152.53				
2600.00	5.00	310.0	2593.40	100.85	-120.19	0.00	156.89				
2650.00	5.00	310.0	2643.21	103.65	-123.52	0.00	161.25				
2700.00	5.00	310.0	2693.02	106.45	-126.86	0.00	165.61				
2750.00	5.00	310.0	2742.83	109.25	-130.20	0.00	169.96				
2800.00	5.00	310.0	2792.64	112.05	-133.54	0.00	174.32				
2850.00	5.00	310.0	2842.45	114.85	-136.88	0.00	174.52				
2900.00	5.00	310.0	2892.26	117.65	-140.22	0.00	183.04				
2950.00	5.00	310.0	2942.07	120.46	-143.55	0.00	187.40				
3000.00	5.00	310.0	2991.88	123.26	-146.89	0.00	191.75				
3050.00	5.00	310.0	3041.69	126.06	-150.23	0.00	196.11				
3100.00	5.00	310.0	3091.50	128.86	-153.57	0.00	200.47				
3150.00	5.00	310.0	3141.31	131.66	-156.91	0.00	204.83				
3200.00	5.00	310.0	3191.12	134.46	-160.24	0.00	209.18				
3250.00	5.00	310.0	3240.93	137.26	-163.58	0.00	213.54				
3300.00	5.00	310.0	3290.74	140.06	-166.92	0.00	217.90				
3350.00	5.00	310.0	3340.55	142.86	-170.26	0.00	222.26				

SES - Stoner Engineering Software

01-07-E4, Plan 1											
Operator Field Well Name Plan							Vertic	Wednesday, April al Section Azimuth Calculation Method Database	Minimum Curvature		
Location		2451' FNL 8	ֆ 1754' FEL E	3HL: 1930' F	FNL & 1980'	MapZon	ne	Lat Long	Ref		
Site	FEL e					Surface	X	Surface L	.ong		
Slot Name	е		UWI			Surface		Surface			
Well Numbe	er		API			Z Datui	m				
Projec	t					Surface	Z	Ground L	evel		
DIRECTIONA	L WELL P	LAN									
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*		
3400.00	5.00	310.0	3390.36	145.67	-173.60	0.00	226.62	ft	ft ft		
3450.00	5.00	310.0	3440.17	148.47	-176.94	0.00	230.97				
3500.00	5.00	310.0	3489.98	151.27	-180.27	0.00	235.33				
3550.00	5.00	310.0	3539.79	154.07	-183.61	0.00	239.69				
3600.00	5.00	310.0	3589.60	156.87	-186.95	0.00	244.05				
3650.00	5.00	310.0	3639.41	159.67	-190.29	0.00	248.40				
3700.00	5.00	310.0	3689.22	162.47	-193.63	0.00	252.76				
3750.00	5.00	310.0	3739.03	165.27	-196.97	0.00	257.12				
3800.00	5.00	310.0	3788.84	168.08	-200.30	0.00	261.48				
3850.00	5.00	310.0	3838.65	170.88	-203.64	0.00	265.84				
3900.00	5.00	310.0	3888.46	173.68	-206.98	0.00	270.19				
3950.00	5.00	310.0	3938.27	176.48	-210.32	0.00	274.55				
4000.00	5.00	310.0	3988.08	179.28	-213.66	0.00	278.91				
4050.00	5.00	310.0	4037.89	182.08	-217.00	0.00	283.27				
4100.00	5.00	310.0	4087.70	184.88	-220.33	0.00	287.63				
4150.00	5.00	310.0	4137.51	187.68	-223.67	0.00	291.98				
4200.00	5.00	310.0	4187.32	190.48	-227.01	0.00	296.34				
4250.00	5.00	310.0	4237.13	193.29	-230.35	0.00	300.70				
4300.00	5.00	310.0	4286.94	196.09	-233.69	0.00	305.06				
4350.00	5.00	310.0	4336.74	198.89	-237.02	0.00	309.41				
4400.00	5.00	310.0	4386.55	201.69	-240.36	0.00	313.77				
4450.00	5.00	310.0	4436.36	204.49	-243.70	0.00	318.13				
4500.00	5.00	310.0	4486.17	207.29	-247.04	0.00	322.49				
4550.00	5.00	310.0	4535.98	210.09	-250.38	0.00	326.85				
4600.00	5.00	310.0	4585.79	212.89	-253.72	0.00	331.20				
4650.00	5.00	310.0	4635.60	215.69	-257.05	0.00	335.56				
4700.00	5.00	310.0	4685.41	218.50	-260.39	0.00	339.92				
4750.00	5.00	310.0	4735.22	221.30	-263.73	0.00	344.28				
4800.00	5.00	310.0	4785.03	224.10	-267.07	0.00	348.63				
*** START D											
4850.00	5.00	310.0	4834.84	226.90	-270.41	0.00	352.99				
4900.00	4.75	310.0	4884.66	229.63	-273.66	0.50	357.24				
4950.00	4.50	310.0	4934.50	232.22	-276.75	0.50	361.27				
5000.00	4.25	310.0	4984.35	234.67	-279.67	0.50	365.09				
5050.00	4.00	310.0	5034.22	236.99	-282.43	0.50	368.68				

SES - Stoner Engineering Software

	01-07-E4, Plan 1											
Operator Field Well Name Plan				Units	feet, %100ft Duchesne UT		08:47	Wednesday, April al Section Azimuth Calculation Method Database	Minimum Curvature			
Location		451' FNL 8	<u> </u>	BHL: 1930' F	FNL & 1980'	MapZone		Lat Long	Ref			
Site	FEL					SurfaceX		Surface L	ong			
Slot Name			UWI			SurfaceY		Surface	-			
Well Numbe			API			Z Datum						
Projec	et					Surface Z		Ground L	evel			
DIRECTIONA	L WELL P	LAN										
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*			
5100.00	3.75	310.0	5084.11	239.16	-285.02	0.50	372.06	ft	ft ft			
5150.00	3.50	310.0	5134.01	241.19	-287.44	0.50	375.22					
5200.00	3.25	310.0	5183.92	243.08	-289.69	0.50	378.17					
F0F		0.4.5.5		044.5-	06: ==		000.55					
5250.00	3.00	310.0	5233.85	244.83	-291.78	0.50	380.89					
5300.00	2.75	310.0	5283.78	246.45	-293.70	0.50	383.40					
5350.00	2.50	310.0	5333.73	247.92	-295.46	0.50	385.69					
5400.00	2.25	310.0	5383.69	249.25	-297.04	0.50	387.76					
5450.00	2.00	310.0	5433.65	250.44	-298.46	0.50	389.62					
5500.00	1.75	310.0	5483.63	251.49	-299.72	0.50	391.25					
5550.00	1.50	310.0	5533.61	252.40	-300.80	0.50	392.67					
5600.00	1.25	310.0	5583.59	253.18	-301.72	0.50	393.87					
5650.00	1.00	310.0	5633.58	253.81	-302.47	0.50	394.85					
5700.00	0.75	310.0	5683.58	254.30	-303.06	0.50	395.62					
5750.00	0.50	310.0	5733.57	254.65	-303.48	0.50	396.16					
5800.00	0.30	310.0	5783.57	254.86	-303.40	0.50	396.49					
*** END DRO		0 = 5850.		234.00	-000.70	0.50	000.40					
5850.00	0.00	0.0	5833.57	254.93	-303.81	0.50	396.60					
5900.00	0.00	0.0	5883.57	254.93	-303.81	0.00	396.60					
5950.00	0.00	0.0	5933.57	254.93	-303.81	0.00	396.60					
0000 00	0.00	0.0	5000 F7	054.00	000.04	0.00	000.00					
6000.00	0.00	0.0	5983.57	254.93	-303.81	0.00	396.60					
6050.00	0.00	0.0	6033.57	254.93	-303.81	0.00	396.60					
6100.00	0.00	0.0	6083.57	254.93	-303.81	0.00	396.60					
6150.00	0.00	0.0	6133.57	254.93	-303.81	0.00	396.60					
6200.00	0.00	0.0	6183.57	254.93	-303.81	0.00	396.60					
6250.00	0.00	0.0	6233.57	254.93	-303.81	0.00	396.60					
6300.00	0.00	0.0	6283.57	254.93	-303.81	0.00	396.60					
6350.00	0.00	0.0	6333.57	254.93	-303.81	0.00	396.60					
6400.00	0.00	0.0	6383.57	254.93	-303.81	0.00	396.60					
6450.00	0.00	0.0	6433.57	254.93	-303.81	0.00	396.60					
6500.00	0.00	0.0	6483.57	254.93	-303.81	0.00	396.60					
6550.00	0.00	0.0	6533.57	254.93 254.93	-303.81	0.00	396.60					
6600.00	0.00	0.0	6583.57	254.93 254.93	-303.81	0.00	396.60					
6650.00	0.00	0.0	6633.57	254.93 254.93	-303.81	0.00	396.60					
6700.00	0.00	0.0	6683.57	254.93 254.93	-303.81	0.00	396.60					
0700.00	0.00	0.0	0000.07	∠J+.3J	-303.01	0.00	550.00					
6750.00	0.00	0.0	6733.57	254.93	-303.81	0.00	396.60					

SES - Stoner Engineering Software

			0	1-07-E4	, Plan	1		
1-07-E4			County State	Duchesne UT		Vertic	al Section Azimut Calculation Metho	
	2451' FNL 8	k 1754' FEL E	3HL: 1930' I	FNL & 1980'	MapZon	ie	Lat Lor	ng Ref
					Surface	¥	Surface	Long
		UWI						
		API						
:					Surface	Z	Ground	Level
WELL P	LAN							
INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN* SysTVD*
0.00	0.0	6783.57	254.93	-303.81	0.00	396.60	ft	ft f
0.00	0.0	6833.57	254.93	-303.81	0.00	396.60		
0.00	0.0	6883.57	254.93	-303.81	0.00	396.60		
0.00	0.0	6933.57	254.93	-303.81	0.00	396.60		
0.00	0.0	6983 57	254 93	-303.81	0.00	396 60		
0.00	0.0	7183.57	254.93	-303.81	0.00	396.60		
0.00	0.0	7000 57	054.00	000.04	0.00	000.00		
0.00	0.0	7 000.07	20 1.00	000.01	0.00	000.00		
0.00	0.0	7733.57	254.93	-303.81	0.00	396.60		
0.00	0.0		254.93	-303.81	0.00			
		7883.57	254.93	-303.81	0.00	396.60		
		7903 57	254 93	-303.81	0.00	396 60		
0.00	0.0	7903.57	254.93	-303.81	0.00	396.60		
	SHL: 2 FEL  INC* 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	SHL: 2451' FNL 8 FEL  WELL PLAN  INC* AZI*  0.00 0.0	SHL: 2451' FNL & 1754' FEL EFEL  UWI API  INC* AZI* TVD*  0.00 0.0 6783.57 0.00 0.0 6833.57 0.00 0.0 6933.57 0.00 0.0 6933.57 0.00 0.0 7033.57 0.00 0.0 7033.57 0.00 0.0 7183.57 0.00 0.0 7283.57 0.00 0.0 7283.57 0.00 0.0 7333.57 0.00 0.0 7333.57 0.00 0.0 7333.57 0.00 0.0 7333.57 0.00 0.0 7333.57 0.00 0.0 7333.57 0.00 0.0 7333.57 0.00 0.0 7483.57 0.00 0.0 7533.57 0.00 0.0 7583.57 0.00 0.0 7583.57 0.00 0.0 7633.57 0.00 0.0 7633.57 0.00 0.0 7633.57 0.00 0.0 7633.57 0.00 0.0 7833.57 0.00 0.0 7833.57 0.00 0.0 7833.57 0.00 0.0 7833.57 0.00 0.0 7833.57 0.00 0.0 7833.57 0.00 0.0 7833.57 0.00 0.0 7833.57 0.00 0.0 7833.57	Units County State Country  SHL: 2451' FNL & 1754' FEL BHL: 1930' I FEL  UWI API  INC* AZI* TVD* N*  0.00 0.0 6783.57 254.93 0.00 0.0 6883.57 254.93 0.00 0.0 6983.57 254.93 0.00 0.0 6983.57 254.93 0.00 0.0 6983.57 254.93 0.00 0.0 7033.57 254.93 0.00 0.0 7033.57 254.93 0.00 0.0 7133.57 254.93 0.00 0.0 7233.57 254.93 0.00 0.0 7233.57 254.93 0.00 0.0 7233.57 254.93 0.00 0.0 7233.57 254.93 0.00 0.0 7233.57 254.93 0.00 0.0 7233.57 254.93 0.00 0.0 7333.57 254.93 0.00 0.0 7333.57 254.93 0.00 0.0 7333.57 254.93 0.00 0.0 7333.57 254.93 0.00 0.0 7333.57 254.93 0.00 0.0 7483.57 254.93 0.00 0.0 7533.57 254.93 0.00 0.0 7633.57 254.93 0.00 0.0 7633.57 254.93 0.00 0.0 7633.57 254.93 0.00 0.0 7633.57 254.93 0.00 0.0 7683.57 254.93 0.00 0.0 7833.57 254.93 0.00 0.0 7833.57 254.93 0.00 0.0 7833.57 254.93 0.00 0.0 7833.57 254.93	Units   feet, %100ft   County   Duchesne   State   UT   County   USA	Units feet, */100ft County Duchesne State UT Country USA  SHL: 2451' FNL & 1754' FEL BHL: 1930' FNL & 1980' FEL  UWI API  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Country   USA   Country   Co	Units feet, "100ft County Duchesne State UT County USA Survey Calculation Method PEL PLAN    No.

Print Form

# BLM - Vernal Field Office - Notification Form

Oper	ator Petroglyph Operating	Rig Name/#	t Capst	ar 334
Subn	nitted By <u>Levi Jacobs</u>	Phone Number	er <u>406-</u>	868-9935
144 33	* 1 /* 2 1			
Qtr/0	Name/Number <u>Ute Tribal 01</u> Qtr <u>SWNE</u> Section <u>18</u> e Serial Number 14-20-H62-2	Township 15S	R	ange <u>4W</u>
Leas	e Serial Number <u>14-20-H62-</u>	1743		
	Number <u>43-013-52656</u>		_	
	I Notice – Spud is the initial pelow a casing string.	spudding of th	ne wel	l, not drilling
	Date/Time	AM	1 🔲	РМ
times	ng – Please report time cas s. Surface Casing Intermediate Casing Production Casing Liner Other	ing run starts,	not ce	menting
	Date/Time <u>05/02/2014</u>	18:00 AM		PM 🗸
	Initial BOPE test at surface BOPE test at intermediate 30 day BOPE test Other	casing point		
	Date/Time	AM	1	РМ
Rema	arks			anners and the administration of the state o

	STATE OF UTAH			FORM 9		
	DEPARTMENT OF NATURAL RESON DIVISION OF OIL, GAS, AND I		i	5.LEASE DESIGNATION AND SERIAL NUMBER: 1420H624743		
SUNDR	Y NOTICES AND REPORT	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significar reenter plugged wells, or to drill ho n for such proposals.	ntly deep rizontal l	en existing wells below aterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Oil Well				8. WELL NAME and NUMBER: Ute Tribal 01-07-E4		
2. NAME OF OPERATOR: PETROGLYPH OPERATING C	:0			9. API NUMBER: 43013526560000		
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste	500 , Boise, ID, 83703	NE NUMBER: 685-7685 Ext	9. FIELD and POOL or WILDCAT: BRUNDAGE CANYON			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451 FNL 1754 FEL				COUNTY: DUCHESNE		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWNE Section: (	HIP, RANGE, MERIDIAN: 01 Township: 05.0S Range: 04.0W N	Meridian:	U	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDI	CATE NA	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION			
NOTICE OF INTENT Approximate date work will start: 6/9/2014  SUBSEQUENT REPORT Date of Work Completion:	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE	□ c	LITER CASING  CHANGE TUBING  COMMINGLE PRODUCING FORMATIONS  RACTURE TREAT  PLUG AND ABANDON	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK		
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR		ECLAMATION OF WELL SITE  SIDETRACK TO REPAIR WELL  SENT OR FLARE	RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF		II TA STATUS EXTENSION	APD EXTENSION		
Report Bute.	WILDCAT WELL DETERMINATION	☐ c	THER	OTHER:		
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly she Please see attached		rtinent details including dates, d	Accepted by the Utah Division of Oil, Gas and Mining FORUE 54, QRP ONLY		
NAME (PLEASE PRINT) Rodrigo Jurado	<b>PHONE NU</b> 435 722-5302	IMBER	TITLE Regulatory & Compliance S	рс		
SIGNATURE N/A			<b>DATE</b> 6/4/2014			

RECEIVED: Jun. 04, 2014

_		FORM 9						
	EPARTMENT OF NATURAL RESOUR VISION OF OIL, GAS AND MII			5. LEASE DESIGNATIO 1420H624743	ON AND SERIAL NUMBER:			
SUNDRY I	NOTICES AND REPORTS	ON WEL	LS	6. IF INDIAN, ALLOTTI Ute Indian Tri				
Do not use this form for proposals to drill new	wells, significantly deepen existing wells below curr als. Use APPLICATION FOR PERMIT TO DRILL to	rent bottom-hole depti	n, reenter plugged wells, or to	7. UNIT or CA AGREEI 1420H624650				
1. TYPE OF WELL OIL WELL .		om for such proposal	5.	8. WELL NAME and NUMBER: Ute Tribal 01-07-E4				
2. NAME OF OPERATOR:				9. API NUMBER:	07-24			
Petroglyph Operating Comp	any Inc.		PHONE NUMBER:	4301352656  10. FIELD AND POOL, OR WILDCAT:				
3. ADDRESS OF OPERATOR: P.O. Box 607	Antelope Cre							
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451' FN	N. 1754' FFL			COUNTY: Duche	sne			
QTR/QTR, SECTION, TOWNSHIP, RANGE	, MERIDIAN: SWNE 1 5S 4	W U		STATE:	<b>UTAH</b>			
11. CHECK APPRO	PRIATE BOXES TO INDICAT			RT, OR OTHER	R DATA			
TYPE OF SUBMISSION			PE OF ACTION	[] perencona	PE OLIMBERIT FORMATION			
NOTICE OF INTENT	ACIDIZE	DEEPEN  FRACTURE	TDEAT		TE CURRENT FORMATION  O REPAIR WELL			
(Submit in Duplicate)	ALTER CASING  CASING REPAIR	FRACTURE		TEMPORARIL				
Approximate date work will start:		OPERATOR		TUBING REPA				
6/9/2014	CHANGE TO PREVIOUS PLANS	PLUG AND A		VENT OR FLA				
SUBSEQUENT REPORT	CHANGE TUBING	PLUG AND A		☐ WATER DISPO				
(Submit Original Form Only)	CHANGE WELL NAME		N (START/RESUME)	☐ WATER SHUT				
Date of work completion:	CHANGE WELL STATUS				-OFF			
and the state of t	COMMINGLE PRODUCING FORMATIONS  CONVERT WELL TYPE	himmed printed	ON OF WELL SITE TE - DIFFERENT FORMATION	OTHER:				
12. DESCRIBE PROPOSED OR COM	PLETED OPERATIONS. Clearly show all p	<u> </u>		nes, etc.				
On or around 6/9/2014, depending on equipment availability, Petroglyph Operating intends to perforate and fracture treat the following: 4228-32, 4468-70, 4619-24, 4639-41, 4678-81, 4687-89, 4753-55, 4783-98, 4802-10, 4845-47, 4940-42, 5012-19, 5142-44, 5152-58, 5250-56, 5266-68, 5279-88, 5303-08, 5331-34, 5352-54, 5446-50, 5496-99, 5522-24, 5540-57, 5560-63, 5600-03, 5751-56, 5760-62, 5836-39, 5894-96, 5949-50, 6000-01, 6006-10, 6018-20, 6026-27, 6030-33, 6047-50, 6062-66, 6152-57, 6278-91, 6298-6302, 6465-70, 6565-70, 6575-78 & 6585-94. We will perforate at 4 shot per foot and isolate zones using Halliburton 8K Composite Plugs. We plan complete the following stages: 6465-6594: 36,400 Gals of fluid containing 65,000#'s of sand, 6152-6302: 36,400 Gals of fluid containing 65,000#'s of sand, 5260-6336: 38,400 Gals of fluid containing 50,000#'s of sand, 5751-5896: 16,800 Gals of fluid containing 30,000#'s of sand, 5250-5354: 39,200 Gals of fluid containing 80,000#'s of sand, 4940-5158: 25,200 Gals of fluid containing 70,000#'s of sand, 4940-5158: 25,200 Gals of fluid containing 35,000#'s of sand, 4753-4847: 36,400 Gals of fluid containing 18,000#'s of sand, 4619-4689: 19,600 Gals of fluid containing 35,000#'s of sand, 4228-4470: 10,080 Gals of fluid containing 18,000#'s of sand. This plan is tentative and will be adjusted as needed during completion operations. Volumes and amounts of sand are only estimates, actual figures will be reported at a later date. All plugs will be drilled out and and the well swabbed if necessary.								
NAME (PLEASE PRINT) Rodrigo Jur	ado	τπι	Regulatory Com	pliance Specialis	st			
SIGNATURE PARTY		DATI	6/4/2014					
- // -								

(This space for State use only)

Print Form

# BLM - Vernal Field Office - Notification Form

Oper	ator Petroglyph Operating	Rig Name/#	t Capst	ar 334
Subn	nitted By <u>Levi Jacobs</u>	Phone Number	er <u>406-</u>	868-9935
144 33	* 1 /* 2 1			
Qtr/0	Name/Number <u>Ute Tribal 01</u> Qtr <u>SWNE</u> Section <u>18</u> e Serial Number 14-20-H62-2	Township 15S	R	ange <u>4W</u>
Leas	e Serial Number <u>14-20-H62-</u>	1743		
	Number <u>43-013-52656</u>		_	
	I Notice – Spud is the initial pelow a casing string.	spudding of th	ne wel	l, not drilling
	Date/Time	AM	1 🔲	РМ
times	ng – Please report time cas s. Surface Casing Intermediate Casing Production Casing Liner Other	ing run starts,	not ce	menting
	Date/Time <u>05/02/2014</u>	18:00 AM		PM 🗸
	Initial BOPE test at surface BOPE test at intermediate 30 day BOPE test Other	casing point		
	Date/Time	AM	1	РМ
Rema	arks			anners and the administration of the state o

	STATE OF UTAH			FORM 9		
	DEPARTMENT OF NATURAL RESON DIVISION OF OIL, GAS, AND I		i	5.LEASE DESIGNATION AND SERIAL NUMBER: 1420H624743		
SUNDR	Y NOTICES AND REPORT	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significar reenter plugged wells, or to drill ho n for such proposals.	ntly deep rizontal l	en existing wells below aterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Oil Well				8. WELL NAME and NUMBER: Ute Tribal 01-07-E4		
2. NAME OF OPERATOR: PETROGLYPH OPERATING C	:0			9. API NUMBER: 43013526560000		
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste	500 , Boise, ID, 83703	NE NUMBER: 685-7685 Ext	9. FIELD and POOL or WILDCAT: BRUNDAGE CANYON			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451 FNL 1754 FEL				COUNTY: DUCHESNE		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWNE Section: (	HIP, RANGE, MERIDIAN: 01 Township: 05.0S Range: 04.0W N	Meridian:	U	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDI	CATE NA	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION			
NOTICE OF INTENT Approximate date work will start: 6/9/2014  SUBSEQUENT REPORT Date of Work Completion:	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE	□ c	LITER CASING  CHANGE TUBING  COMMINGLE PRODUCING FORMATIONS  RACTURE TREAT  PLUG AND ABANDON	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK		
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR		ECLAMATION OF WELL SITE  SIDETRACK TO REPAIR WELL  SENT OR FLARE	RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF		II TA STATUS EXTENSION	APD EXTENSION		
Report Bute.	WILDCAT WELL DETERMINATION	☐ c	THER	OTHER:		
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly she Please see attached		rtinent details including dates, d	Accepted by the Utah Division of Oil, Gas and Mining FORUE 54, QRP ONLY		
NAME (PLEASE PRINT) Rodrigo Jurado	<b>PHONE NU</b> 435 722-5302	IMBER	TITLE Regulatory & Compliance S	рс		
SIGNATURE N/A			<b>DATE</b> 6/4/2014			

RECEIVED: Jun. 04, 2014

_		FORM 9						
	EPARTMENT OF NATURAL RESOUR VISION OF OIL, GAS AND MII			5. LEASE DESIGNATIO 1420H624743	ON AND SERIAL NUMBER:			
SUNDRY I	NOTICES AND REPORTS	ON WEL	LS	6. IF INDIAN, ALLOTTI Ute Indian Tri				
Do not use this form for proposals to drill new	wells, significantly deepen existing wells below curr als. Use APPLICATION FOR PERMIT TO DRILL to	rent bottom-hole depti	n, reenter plugged wells, or to	7. UNIT or CA AGREEI 1420H624650				
1. TYPE OF WELL OIL WELL .		om for such proposal	5.	8. WELL NAME and NUMBER: Ute Tribal 01-07-E4				
2. NAME OF OPERATOR:				9. API NUMBER:	07-24			
Petroglyph Operating Comp	any Inc.		PHONE NUMBER:	4301352656  10. FIELD AND POOL, OR WILDCAT:				
3. ADDRESS OF OPERATOR: P.O. Box 607	Antelope Cre							
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451' FN	N. 1754' FFL			COUNTY: Duche	sne			
QTR/QTR, SECTION, TOWNSHIP, RANGE	, MERIDIAN: SWNE 1 5S 4	W U		STATE:	<b>UTAH</b>			
11. CHECK APPRO	PRIATE BOXES TO INDICAT			RT, OR OTHER	R DATA			
TYPE OF SUBMISSION			PE OF ACTION	[] perencona	PE OLIMBERIT FORMATION			
NOTICE OF INTENT	ACIDIZE	DEEPEN  FRACTURE	TDEAT		TE CURRENT FORMATION  O REPAIR WELL			
(Submit in Duplicate)	ALTER CASING  CASING REPAIR	FRACTURE		TEMPORARIL				
Approximate date work will start:		OPERATOR		TUBING REPA				
6/9/2014	CHANGE TO PREVIOUS PLANS	PLUG AND A		VENT OR FLA				
SUBSEQUENT REPORT	CHANGE TUBING	PLUG AND A		☐ WATER DISPO				
(Submit Original Form Only)	CHANGE WELL NAME		N (START/RESUME)	☐ WATER SHUT				
Date of work completion:	CHANGE WELL STATUS				-OFF			
and the state of t	COMMINGLE PRODUCING FORMATIONS  CONVERT WELL TYPE	himmed printed	ON OF WELL SITE TE - DIFFERENT FORMATION	OTHER:				
12. DESCRIBE PROPOSED OR COM	PLETED OPERATIONS. Clearly show all p	<u> </u>		nes, etc.				
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NAME (PLEASE PRINT) Rodrigo Jur	ado	τπι	Regulatory Com	pliance Specialis	st			
SIGNATURE PARTY		DATI	6/4/2014					
- // -								

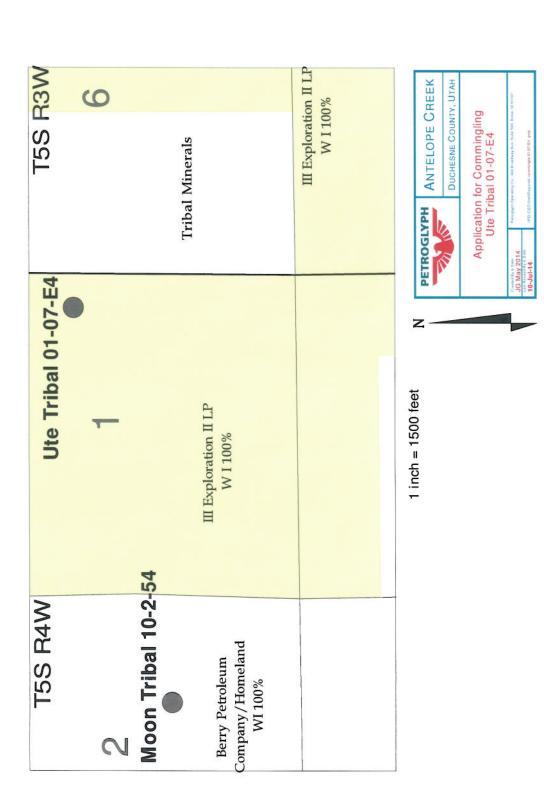
(This space for State use only)

Sundry Number: 53301 API Well Number: 43013526560000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

STATE OF UTAH		FORM 9	
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: 1420H624743
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.			7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Ute Tribal 01-07-E4
2. NAME OF OPERATOR: PETROGLYPH OPERATING CO			9. API NUMBER: 43013526560000
		<b>PHONE NUMBER:</b> 208 685-7685 Ext	9. FIELD and POOL or WILDCAT: BRUNDAGE CANYON
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451 FNL 1754 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 01 Township: 05.0S Range: 04.0W Meridian: U			COUNTY: DUCHESNE
			STATE: UTAH
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
Petroglyph Operating oil and gas production the well referenced anotifications in a	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly show an g Company, Inc. requests peon from the Wasatch and Greabove. Petroglyph Operating accordance with with Utah's C22. Please see the attached Map.	ermission to commingle en River Formations on has made all necessary Dil, Gas, and Mining	Accepted by the Utah Division of
NAME (PLEASE PRINT)	PHONE NUMBE	ER   TITLE	
Rodrigo Jurado	435 722-5302	Regulatory & Compliance S	рс
SIGNATURE   N/A		<b>DATE</b> 7/14/2014	

### AFFIDAVIT OF NOTICE

State of Idaho	)
Lan o supplied	) ss
County of Ada	)
I, Vera Johnson	a, the affiant herein, being of lawful age and duly sworn upon his oath deposes and states as
follows:	
Y7 Y 1	
	s the Land Administrator for Petroglyph Energy, Inc., an Idaho Corporation, with headquarters by Avenue, Suite 500, Boise, ID 83706, and is duly authorized to make this Affidavit on behalf
of said corporation.	
	ergy, Inc. has submitted notices to commingle production from the Wasatch and Green River ving well lying within the boundaries of the Antelope Creek Plan of Cooperative Development 0-H62-4743:
	UTE TRIBAL 01-07-E4
	in accordance with Utah's Oil, Gas and Mining regulation R649-3-22. As operator, Petroglyph owner of contiguous oil and gas leases overlying the pool and no notice to other parties is
	Petroglyph Energy, Inc.
	r etrogryph Energy, me.
	Vera Johnson
State of Idaho	)
	) ss
County of Ada	
	foregoing Affidavit was subscribed and sworn to before me on theday of
Witness my har	nd and official seal.
	Marroly Terlins
(SEAL	Notary Public //
THE PARTY NAMED IN	DY JEAN AND THE PARTY OF THE PA



	STATE OF UTAH				FORM 9
ι	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		1		<b>DESIGNATION AND SERIAL NUMBER:</b> 624743
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF IND	IAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT o	r CA AGREEMENT NAME:	
1. TYPE OF WELL Oil Well					NAME and NUMBER: bal 01-07-E4
2. NAME OF OPERATOR: PETROGLYPH OPERATING C	:0			<b>9. API NI</b> 43013	JMBER: 526560000
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste	500 , Boise, ID, 83703		NE NUMBER: 3 685-7685 Ext		and POOL or WILDCAT: PAGE CANYON
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451 FNL 1754 FEL				DUCHE	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWNE Section: (	HIP, RANGE, MERIDIAN: 01 Township: 05.0S Range: 04.0W Meri	dian:	U	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICAT	TE NA	ATURE OF NOTICE, REPOR	T, OR C	THER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE	A	ALTER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	□ c	CHANGE TUBING		CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ г	RACTURE TREAT		NEW CONSTRUCTION
7/15/2014	OPERATOR CHANGE	Пр	PLUG AND ABANDON		PLUG BACK
SPUD REPORT	✓ PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	□ s	SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON
	TUBING REPAIR	□ v	ENT OR FLARE		WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	□s	SI TA STATUS EXTENSION		APD EXTENSION
·	WILDCAT WELL DETERMINATION		OTHER	отн	====
	irst production for this well			epths, vo	lumes, etc.
The date of i	irst production for this wen	was	5 07/13/2014.		Accepted by the Utah Division of
					il, Gas and Mining
				FO	RIRECORDIONLY
					tagast 51, 251.
			ı		
NAME (PLEASE PRINT) Rodrigo Jurado	<b>PHONE NUMB</b> 435 722-5302	ER	TITLE Regulatory & Compliance S	рс	
SIGNATURE N/A			<b>DATE</b> 7/21/2014		

RECEIVED: Jul. 21, 2014

	STATE OF UTAH			FORM 9
	DEPARTMENT OF NATURAL RESOUR	RCES		5.LEASE DESIGNATION AND SERIAL NUMBER:
	DIVISION OF OIL, GAS, AND M	IINING		1420H624743
	RY NOTICES AND REPORTS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	oposals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.		7.UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Oil Well				8. WELL NAME and NUMBER: Ute Tribal 01-07-E4
2. NAME OF OPERATOR: PETROGLYPH OPERATING O	co			9. API NUMBER: 43013526560000
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste	500 , Boise, ID, 83703		NE NUMBER: 685-7685 Ext	9. FIELD and POOL or WILDCAT: BRUNDAGE CANYON
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451 FNL 1754 FEL				COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSI Qtr/Qtr: SWNE Section:	HIP, RANGE, MERIDIAN: 01 Township: 05.0S Range: 04.0W Me	eridian:	U	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICA	ATE NA	TURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE		TER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	СН	HANGE TUBING	CHANGE WELL NAME
7,550	CHANGE WELL STATUS	☐ cc	OMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	✓ FR	RACTURE TREAT	NEW CONSTRUCTION
7/15/2014	OPERATOR CHANGE	☐ PL	LUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RE	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SII	DETRACK TO REPAIR WELL	TEMPORARY ABANDON
_	TUBING REPAIR	VE	ENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	☐ sı	TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	□ o1	THER	OTHER:
	COMPLETED OPERATIONS. Clearly show Please see attached.	w all perf	tinent details including dates, d	<u>'</u>
NAME (PLEASE PRINT) Rodrigo Jurado	<b>PHONE NUM</b> 435 722-5302	/IBER	TITLE Regulatory & Compliance S	рс
SIGNATURE N/A			<b>DATE</b> 10/1/2014	

STATE OF UTAH

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-(	0	RΛ	-Ca

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING 5. LEASE DESIGNATION AND SERIAL NUMBER: 14-20-H62-4743 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: SUNDRY NOTICES AND REPORTS ON WELLS Ute Indian Tribe 7. UNIT or CA AGREEMENT NAME Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. 14-20-H62-4650 1 TYPE OF WELL 8. WELL NAME and NUMBER: OIL WELL 🗸 GAS WELL OTHER Ute Tribal 01-07-E4 2. NAME OF OPERATOR: 9. API NUMBER: Petroglyph Operating Company Inc. 4301352656 3. ADDRESS OF OPERATOR: HONE NUMBER 10. FIELD AND POOL, OR WILDCAT P.O. Box 607 Antelope Creek Roosevelt UT 84066 (435) 722-2531 4. LOCATION OF WELL FOOTAGES AT SURFACE: 2451' FNL, 1754' FEL COUNTY: Duchesne QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE **5S** 4W U STATE **UTAH** CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE DEEPEN REPERFORATE CURRENT FORMATION NOTICE OF INTENT (Submit in Duplicate) ALTER CASING Z FRACTURE TREAT SIDETRACK TO REPAIR WELL Approximate date work will start: CASING REPAIR **NEW CONSTRUCTION** TEMPORARILY ABANDON CHANGE TO PREVIOUS PLANS OPERATOR CHANGE TUBING REPAIR CHANGE TUBING PLUG AND ABANDON VENT OR FLARE SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK WATER DISPOSAL (Submit Original Form Only) CHANGE WELL STATUS PRODUCTION (START/RESUME) WATER SHUT-OFF Date of work completion: COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE OTHER: 7/15/2014 CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc On 6/4/2014 Petroglyph Operating ran GR/CBL and found ETOC @ Surface. On 6/24/2014 we then perforated the following: 6585-94, 6575-78, 6565-70, 6465-74, 6298-6302, 6278-91, 6152-57, 6062-66, 6047-50, 6030-33, 6026-27, 6018-20, 6006-10, 6000-01, 5949-50, 5894-96, 5836-39, 5760-62, 5751-56, 5600-03, 5560-63, 5540-57, 5522-24, 5496-99, 5446-50, 5352-54, 5331-34, 5303-08, 5279-88, 5266-68, 5250-56, 5152-58, 5142-44, 5012-19, 4940-42, 4845-47, 4802-10, 4783-98, 4753-55, 4687-89, 4678-81, 4639-41, 4619-24, 4468-70, 4228-32. We isolated and fracture treated the following intervals: 6,465'-6,594': 854 Bbls of fluid containing 65,000#'s of sand, 6,152'-6,302': 938 Bbls of fluid containing 65,140#'s of sand. 5,949'-6,066': 828 Bbls of fluid containing 50,020#'s of sand. 5,751'-5,896': 521 Bbls of fluid containing 30,320#'s of sand, 5,446'-5,603': 939 Bbls of fluid containing 80,000#'s of sand, 5,250'-5,354': 837 Bbls of fluid containing 69,060#'s of sand, 4,940'-5,158': 612 Bbls of fluid containing 45,000#'s of sand, 4,753'-4,847': 793 Bbls of fluid containing 65,000#'s of sand, 4,619'-4,689': 510 Bbls of fluid containing 35,000#'s of sand, 4,228'-4,470': 377 Bbls of fluid containing 19,000#'s of sand. Isolation plugs used were Halliburton 8K Composite Plugs, fluid used was Dyna LP 22 18# gelled fluid, sand used was 20/40 Mesh Premium White Sand and guns used were Titan 3-1/8", containing 22.7 gram charges, 0.42" EHD, 23.54" TTP @ 4 SPF @ 120\* Phased. All plugs were drilled out and cleaned out to PBTD, 7,102'. The well was swabbed until a good oil cut was see, then ran a pump on 7/15/2014 and put to pump. Rodrigo Jurado Regulatory Compliance Specialist NAME (PLEASE PRINT) 10/1/2014 SIGNATURE DATE

(This space for State use only)

			DEPAR	ST RTMEN	ATE (			URCES	3							REPORT	- 🔲	FO	RM 8
		[		ON O										5. L	EASE DES			RIAL NUMBE	ĒR:
WEL	L CON	MPLE1	ΓΙΟΝ	OR F	RECC	MPL	ETIC	N RI	EPOF	RT A	AND	LO	G			ALLOTTEE (		BE NAME	***************************************
1a. TYPE OF WELL		0 W	ELL Z	] (	GAS C		DRY		ОТН	IER _						AGREEMEN H62-46		Ē	
b. TYPE OF WORK NEW WELL	K: HORIZ. [ LATS. [	] P	EEP-	] [	RE- ENTRY	]	DIFF. RESVR.		OTH	ER _				8. W	ELL NAMI	E and NUME bal 01-0	ER:	4	
2. NAME OF OPERA Petroglyph				v Inc											PI NUMBE				
3. ADDRESS OF OF	PERATOR:			-				0.47	200	Р		NUMBER		10 F	ELD AND	POOL, OR		\T	
P.O. Box 60			HY RO	oseve	lt	STATE	UT	ZIP <b>84</b> 0	166		(43	5) /22	2-2531			pe Cree		HIP RANGE	
AT SURFACE:			54' FE	EL										1	MERIDIAN VNE			HIP, RANGE	1
AT TOP PRODU	CING INTER	RVAL REPO	RTED BE	LOW: 2	248' F	NL, 1	975' F	EL											
AT TOTAL DEPT	н: 220	3' FNL,	2069'	FEL											COUNTY Ouches	ne	1	3. STATE	JTAH
14. DATE SPUDDED	D:	15. DATE 1		CHED:	16. DATE	COMPL		,	ABANDON	IED [	]	READY T	O PRODUC	e 🗸		ATIONS (DI 264' RK		RT, GL):	************
18. TOTAL DEPTH:	MD 7	,940		19. PLUG	BACK T.E	.: MD	7,102		20. IF	MULTII	PLE CC	MPLETIC	ONS. HOW	MANY? *		TH BRIDGE JG SET:	MD		
22. TYPE ELECTRIC	TVD 7		W(24) 1 0	CC DUNG	T. basik sas		7,084		<u> </u>	23.				,			TVD		
ACTR, SDD								ot .		WAS	S DST I	_ CORED RUN? NAL SUR <sup>\</sup>		NO NO	✓ Y	ES C	(Subn	nit analysis) nit report) nit copy)	
24. CASING AND L	INER RECO	RD (Report	all string	s set in we	ell)				r					T	Т			7	<del></del>
HOLE SIZE	SIZE/G	RADE	WEIGHT	「 (#/ft.)	TOP (	MD)	вотто	M (MD)	STAGE D	CEMEN EPTH	ITER		T TYPE & SACKS	SLUI VOLUM		CEMENT	OP **	AMOUNT	PULLED
26	16	J-55	7		(		7	3						<u> </u>		0		Cond	luctor
12.25	8.625	J-55	24			)		36				G	350	7	2	0			
7.875	5.5	J-55	15		C			313	<u> </u>										
7.875	5.5	L-80	1	7	6,6	13	7,9	)25				G	1,18 <b>5</b>	36	68	0		CE	3L
																	general security secu		Marie Control of the
25. TUBING RECOF		A PET AMEL	Laven	CO CET /	40)	SIZE		DEDT	SET (MD		ACKEE	R SET (MI	27	SIZE	I n	EPTH SET (	игэ\	PACKER SI	ET (ME)
2.875		.652	PACE	ER SET (N	VIO)	312.0		DEFIN	OLI (MD	<del>'                                     </del>	ACKLI	COCT (INI	<u>"</u>	OILL		er moer (	<del>\</del>	THORETON	~ ( (NIC)
26. PRODUCING IN		,002								27. P	ERFOF	RATION R	ECORD						
FORMATION		ТОР	(MD)	вотто	M (MD)	TOP	(TVD)	вотто	M (TVD)	IN	ERVA	L (Top/Bo	t - MD)	SIZE	NO. HOL	ES P	ERFOR	ATION STAT	US .
(A) Wasatch	***************************************	6,	152	6,5	594	6,	134	6,5	76	6,1	52		6,594	0.42	192	Open	$\overline{Z}$	Squeezed [	J
(B) Basal Car	rbonate	5,	949	6,0	066	5,9	931	6,0	)48	5,9	49		6,066	0.42	76	Open	<b>√</b>	Squeezed [	
(C) Green Riv			228	+	396		215	<del></del>	96	4,2	28		5,896	0.42	532	Open	<b>√</b>	Squeezed	J
(D)				1							***************************************					Open		Squeezed [	J
28. ACID, FRACTU	RE, TREATI	MENT, CEM	ENT SQU	EEZE, ET	<b>3</b> .														
DEPTH	INTERVAL								AM	OUNT	AND T	YPE OF N	MATERIAL						
6,152'-6,594	1		1,79	2 Bbls	of Dy	na LP	22 18	# Gel	led Flu	uid C	onta	iining	130,14	0#'s of	20/40	Mesh 9	Sand		
5,949'-6,066			828	Bbls c	f Dyna	LP 2	2 18#	Gelle	d Fluic	Cor	ntain	ing 50	),020#':	s of 20	/40 Me	esh Sar	d.		
4,228'-5,896	) 1	и, основного результа обтобленова обто	4,58	9 Bbls	of Dy	na LP	22 18	# Gell	ed Flu	id C	onta	ining :	343,380	O#'s of	20/40	Mesh S	and		
29. ENCLOSED AT		s:	<u></u>		.,		<u> </u>	*****************					······································	<del></del>				_STATUS:	
		HANICAL LO		) CEMENT	VERIFICA	TION		GEOLOGI CORE AN	IC REPOR			OST REPO	drt 🔽		TIONAL SI	URVEY		POW	

24	IMPERIME	PRODUCTIO	

## INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: TEST DATE:			HOURS TESTED		TEST PRODUCTION RATES: →	OIL - BBL: 68	GAS - MCF: 82	WATER – BBL: 45	PROD. METHOD:	
7/15/2014	·	8/8/2014			24	101120	00	02	45	Rod Pump
32/64	TBG. PRESS. 450	csg. press. 400	API GRAVITY 42.80	BTU – GAS 1	GAS/OIL RATIO 1,206	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF: 82	WATER – BBL: 45	INTERVAL STATUS Open
				INT	ERVAL B (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL + BBL:	GAS MCF:	WATER – BBL:	PROD METHOD
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS
•				INT	ERVAL C (As shor	vn in item #26)				
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTED	D:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS
	······································			INT	ERVAL D (As sho	vn in item #26)			<u> </u>	I
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTED	):	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER BBL:	INTERVAL STATUS

Used for Fuel

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

ı	34.	FORMATION	(Log)	MARKERS:
---	-----	-----------	-------	----------

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				Mahogany Garden Gulch B Marker X Marker Y Marker Douglas Creek B Lime Castle Peak Basal Carbonate Wasatch	2,790 3,518 3,930 4,435 4,466 4,579 4,986 5,532 5,936 6,212

35. ADDITIONAL REMARKS (Include plugging procedure)

36.	l hereby	certify	that the	toregoing	and attached	information	is complete	and co	rrect as	determined	from all	available	records.

NAME (PLEASE PRINT) Rodrigo Jurado

SIGNATURE DATE Regulatory Compliance Specialist

DATE 10/27/2014

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\*\* ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

<sup>\*</sup> ITEM 20: Show the number of completions if production is measured separately from two or more formations.

00	00000	88888	rred th	
5.54 5.10	4.39 5.30 5.80 5.76 5.45	.00 .43 .26 1.32 2.86	Incl Angle Deg	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2



Lease/Well: Ute Tribal\_01-07-E4
Location: Sec. 1, T55, R4W
Rig Name: Capstar #334
RKB: 5964'
G.L. or M.S.L.: GL\_5951'

State/Country: Utah/USA
Declination: 11.04

Company: Petroglyph

Job Number: UT141418

Declination: 11.04
Grid: True

File name: C:\WINSERVE\UT141418.SVY

Date/Time: 02-May-14 / 06:03
Curve Name: Ute Tribal\_01-07-E4\_Actual

## Payzone Directional Services LLC

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 310.00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

1359.00 1450.00 1542.00	903.00 994.00 1085.00 1176.00 1268.00	.00 535.00 627.00 720.00 812.00	Measured Depth FT
5.54 5.10 4.70	4.39 5.30 5.80 5.76 5.45	.00 .43 .26 1.32 2.86	Incl Angle Deg
316.59 313.65 310.40	314.97 317.40 312.33 310.62 310.18	.00 179.46 290.84 309.87 307.23	Drift Direction Deg
1356.66 1447.27 1538.94	902.74 993.41 1083.98 1174.52 1266.08	.00 534.99 626.99 719.98 811.92	True Vertical Depth
34.00 39.99 45.25	4.39 9.94 16.13 22.20 28.03	.00 -2.01 -2.28 -1.52	N-S FT
-39.69 -45.63 -51.46	-8.11 -13.41 -19.66 -26.52 -33.37	.00 .02 17 -1.19 -3.83	E-W FT
52.26 60.66 68.51	9.03 16.67 25.43 34.59 43.57	.00 -1.30 -1.33 06 3.29	Vertical Section FT
52.26 60.67 68.53	9.22 16.70 25.43 34.59 43.57	.00 2.01 2.28 1.93 3.87	C L Distance FT
310.59 311.23 311.33	298.42 306.54 309.37 309.93 310.03	.00 179.46 184.34 218.17 278.19	CLOSURE ce Direction Deg
.68 .57	1.76 1.02 .77 .19	.00 .08 .63 1.16	Dogleg Severity Deg/100

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	4372.00 4464.00 4555.00 4646.00	3916.00 4007.00 4098.00 4190.00 4281.00	3459.00 3551.00 3642.00 3733.00 3824.00	3003.00 3094.00 3185.00 3277.00 3368.00	2546.00 2637.00 2729.00 2820.00 2911.00	2090.00 2181.00 2272.00 2363.00 2455.00	1633.00 1724.00 1815.00 1907.00 1998.00	Measured Depth FT
	5.50 4.50 4.00 4.80	5.84 5.30 4.60 5.00 4.90	4.57 5.14 4.83 4.22 4.83	5.01 4.70 5.58 5.45 5.01	5.40 5.70 5.10 4.50 4.48	5.70 5.10 5.50 4.60 4.10	5.00 5.10 5.80 5.60 5.20	Incl Angle Deg
	308.20 317.10 312.50 310.60	313.03 310.10 305.20 306.10 308.80	306.31 309.56 307.28 303.54 310.62	311.32 308.29 313.91 312.64 309.65	310.40 317.00 315.60 310.20 308.73	313.10 308.80 310.00 307.90 303.40	322.70 330.60 330.00 325.90 323.50	Drift Direction Deg
	4357.84 4449.49 4540.24 4630.97	3903.64 3994.21 4084.87 4176.55 4267.21	3448.29 3539.96 3630.61 3721.33 3812.04	2994.10 3084.77 3175.41 3266.98 3357.60	2538.85 2629.42 2721.01 2811.70 2902.42	2084.58 2175.17 2265.78 2356.43 2448.16	1629.61 1720.26 1810.85 1902.39 1992.99	True Vertical Depth
ı	213.36 218.73 223.49 228.11	188.29 194.16 198.97 203.46 208.23	164.35 169.14 174.06 178.23 182.57	137.83 142.76 148.14 154.20 159.67	110.86 116.94 123.21 128.40 132.93	86.22 91.84 97.18 102.22 106.30	50.82 57.50 65.01 72.75 79.74	FT V-S
•	-233.61 -239.53 -244.30 -249.53	-201.87 -208.47 -214.67 -220.92 -227.15	-171.65 -177.78 -183.97 -189.81 -195.51	-140.97 -146.88 -152.99 -159.43 -165.67	-111.77 -118.12 -124.09 -129.65 -135.15	-80.98 -87.43 -93.92 -100.14 -105.80	-56.70 -61.09 -65.38 -70.22 -75.16	E-W
	316.10 324.09 330.80 337.78	275.67 284.50 292.34 300.01 307.86	237.13 244.91 252.81 259.97 267.13	196.58 204.28 212.42 221.25 221.25 229.54	156.89 165.65 174.26 181.85 188.98	117.45 126.01 134.41 142.42 149.37	76.11 83.76 91.87 100.55 108.83	Vertical Section FT
	316.38 324.37 331.11 338.09	276.05 284.88 292.69 300.33 308.15	237.64 245.39 253.26 260.37 267.50	197.15 204.83 212.96 221.80 230.09	157.43 166.22 174.87 182.47 189.57	118.28 126.80 135.15 143.10 149.97	76.15 83.90 92.20 101.11 109.58	C L Distance FT
	312.41 312.40 312.45 312.43	313.01 312.96 312.83 312.83 312.64 312.51	313.76 313.57 313.41 313.20 313.04	314.35 314.19 314.08 314.08 314.05 313.94	314.77 314.71 314.79 314.79 314.72 314.53	316.80 316.41 315.98 315.59 315.14	311.87 313.27 314.84 316.02 316.69	OSURE Direction Dea
	.66 1.37 .66	1.12 .67 .90 .44	.57 .69 .40 .74	.62 .44 1.11 .19	1.56 .77 .67 .82	1.20 .79 .46 1.01	1.19 .77 .77 .49 .50	Dogleg Severity Deg/100

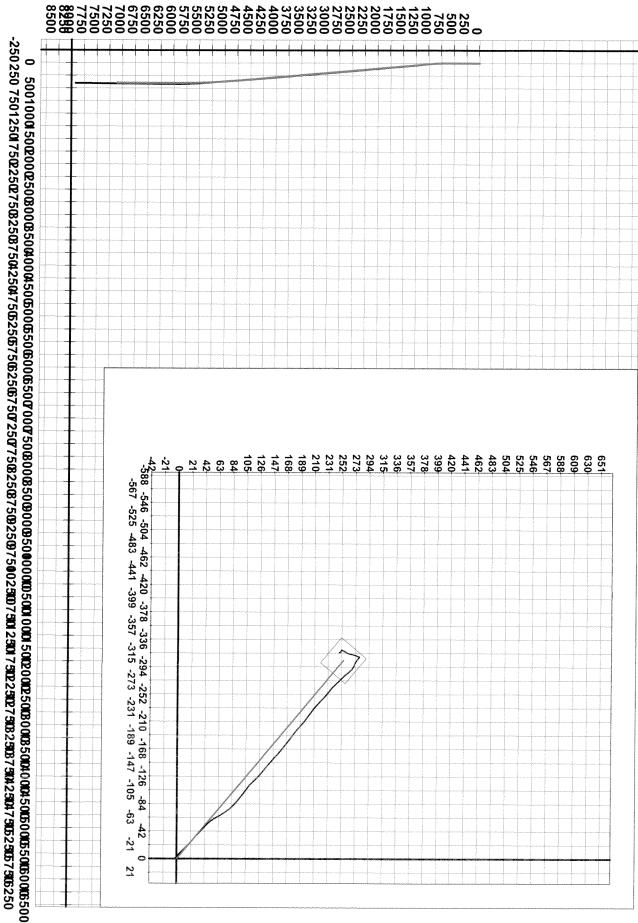
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	7477.00 7569.00 7660.00 7751.00	7021.00 7112.00 7203.00 7294.00 7386.00	6564.00 6656.00 6747.00 6838.00 6929.00	6108.00 6199.00 6290.00 6382.00 6473.00	5651.00 5742.00 5834.00 5925.00 6017.00	5194.00 5286.00 5377.00 5468.00 5560.00	FT 4738.00 4829.00 4920.00 5012.00 5103.00	Measured
	.75 .75 .75 .75	1.23 1.40 1.41 1.32 1.45	1.26 1.28 1.05 1.05 1.22	.97 .97 .88 1.10 1.11	2.55 2.55 1.27 .48 .70	5.23 4.92 4.04 3.43 2.60	4.40 4.40 4.70 4.30 3.70 4.40	Incl
	133.56 110.97 122.97 133.08	199.61 209.19 214.16 212.87 208.93	185.39 191.09 196.20 197.56 201.90	197.06 203.43 200.31 198.64 205.82	300.82 315.05 306.22 177.42 200.05	318.13 324.40 309.87 286.27 298.60	Direction Deg 307.70 308.70 320.42 317.60 312.30	Drift
	7458.84 7550.83 7641.82 7732.82	7002.96 7093.93 7184.91 7275.88 7367.85	6546.05 6638.03 6729.01 6820.00 6910.98	6090.13 6181.11 6272.10 6364.09 6455.07	5633.29 5724.20 5816.15 5907.14 5999.14	5177.33 5268.97 5359.70 5450.51 5542.38	Vertical Depth 4722.67 4813.39 4904.11 4995.88 5086.65	True
)	252.17 251.54 251.00 250.27	261.09 259.20 257.30 255.50 253.59	270.03 268.01 266.22 264.62 262.93	277.74 276.30 274.94 273.44 271.82	275.18 277.65 279.70 279.92 279.00	257.01 263.34 268.57 271.38 273.15	N-S FT 232.78 237.24 242.20 247.05 251.57	<u>.</u>
,	-319.63 -318.63 -317.57 -316.64	-315.13 -316.00 -317.17 -318.37 -319.50	-312.62 -312.91 -313.34 -313.82 -314.43	-309.87 -310.40 -310.95 -311.47 -312.14	-303.04 -306.21 -308.48 -309.27 -309.45	-280.11 -285.21 -289.94 -295.02 -299.49	E-W FT -255.25 -260.92 -266.00 -270.20 -274.76	
	406.94 405.77 404.62 403.43	409.23 408.68 408.36 408.11 407.76	413.05 411.98 411.15 410.49 409.88	415.90 415.38 414.93 414.37 413.83	409.02 413.04 416.10 416.84 416.39	379.78 387.75 394.74 400.44 405.00	Section FT 345.16 352.37 359.45 365.79 372.19	Vertical
	407.13 405.95 404.79 403.61	409.23 408.70 408.41 408.21 407.91	413.09 412.00 411.16 410.50 409.88	416.12 415.56 415.07 414.47 413.90	409.34 413.34 416.40 417.14 416.65	380.15 388.19 395.21 400.85 405.35	Distance FT 345.45 352.65 359.75 366.12 372.54	CL
	308.27 308.29 308.32 308.32	309.64 309.36 309.05 308.75 308.44	310.82 310.58 310.35 310.14 309.90	311.87 311.67 311.48 311.28 311.05	312.24 312.20 312.20 312.20 312.15 312.04	312.54 312.72 312.81 312.81 312.61 312.37		OSURE
	1.60 .32 .17	.05 .30 .10	.49 .14 .28 .03	.30 .12 .11 .24	.12 .69 1.42 1.77	1.06 .69 1.57 1.80 1.14	Severity Deg/100 .50 .34 1.10 .69	Dogleg

Page 4
Ute Tribal\_01-07-E4\_Actual File: C:\WINSERVE\UT141418.SVY

7940.00	TD Projection to Bit	7876.00	đ	7842.00	Measured Depth FT
.79	on to Bit	.79		.75	Incl Angle Deg
153.42		153.42		154.26	Drift Direction Deg
7921.80		7857.81		7823.81	True Vertical Depth
248.13		248.92		249.33	RT N-S
-315.35		-315.74	***************************************	-315.95	E-W
401.07		401.88	***************************************	402.29	Vertical Section FT
401.27		402.06	TOTOMO COME AND A REAL REAL PROPERTY OF THE PR	402.48	C L Distance FT
308.20		308.25		308.28	CLOSURE Direction Deg
.00		N		بن 0	Dogleg Severity Deg/100

Job Number: UT141418
Company: Petroglyph
Lease/Well: Ute Tribal 01-07-E4
Location: Sec. 1, T5S, R4W
Rig Name: Capstar #334
State/Country: Utah/USA





Declination: 11.04

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

	RA.	

## REDORT OF WATER ENCOUNTERED DURING DRILLING

Vell name and					The second secon
PI number: 43					Duoboono
			Township <u>5S</u> Range <u>4W</u>	Cou	nty Ducheshe
Vell operator:		erating Com	ipany, Inc.		
•	P.O. Box 607				
•	city Roosevelt		state UT zip 84066	Ph	one: (435) 722-2531
rilling contract	or: ProPetro S	Services			
Address:	1422 East 150	0 South			
9	<sub>city</sub> Vernal		state UT zip 84078	Ph	one: <u>(435)</u> 789-1735
Vater encounte	red (attach ad	ditional page	es as needed):		
Γ	DEP.	TH	VOLUME		QUALITY
	FROM	ТО	(FLOW RATE OR HEAD)		(FRESH OR SALTY)
	0	486	0		No Water Encountered
<u> </u>					
-					
_					
<u>L</u>					
ormation tops:	4		2		3
(Top to Bottom)	4		5		
	7				9
	10		4 1		
	. ***		SERBALLICI SERBANDAN PER		www.executeder.com/ex
an analysis ha	as been made	of the water	encountered, please attach a	сору с	f the report to this form.
hereby certify tha	at this report is tr	ue and comple	ete to the best of my knowledge.		
NAME (PLEASE PRINT	Rodrigo Jura	do	TITL	Reg	ulatory Compliance Specialist
	1111		DAT	4/18	/2014